

No. 004

24-month Chronic and Carcinogenic Inhalation Toxicological Study of
Methanol in Fischer Rats

(Vol. 7)

Individual Major Pathological Findings (Male)
Individual Pathological Findings (Male)

September 30, 1985

Mitsubishi Chemical Safety Institute, Ltd.

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APPENDIX 10-M1-1

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
0001	Y	733	114.2	444.3	330.1	LEYDIG CELL TUMOR: TESTES 11-M1-0001
0002	Y	733	119.8	417.6	297.8	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS KERATOACANTHOMA: SKIN LEYDIG CELL TUMOR: TESTES 11-M1-0002
0003	Y	733	115.5	479.7	364.2	LEYDIG CELL TUMOR: TESTES 11-M1-0003
0004	Y	733	118.9	452.2	333.3	LEYDIG CELL TUMOR: TESTES 11-M1-0004
0005	Y	733	114.7	478.5	363.8	LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS MESOTHELIOMA: PERITONEUM 11-M1-0005
0006	Y	733	120.3	453.7	333.4	LEYDIG CELL TUMOR: TESTES 11-M1-0006
0007	W	721	114.4	343.2	228.8	ADENOMA: PITUITARY GLAND 11-M1-0007
0008	W	687	122.4	349.1	226.7	LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS FIBROSARCOMA: SKIN (SUBCUTIS) 11-M1-0008
0009	Y	733	120.4	430.0	309.6	LEYDIG CELL TUMOR: TESTES 11-M1-0009
0010	W	608	127.0	389.1	262.1	LEYDIG CELL TUMOR: TESTES 11-M1-0010

1) FATE : Y / KILLED ON SCHEDULE ; W / KILLED IN EXTREMIS .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M1-2
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT
INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX :			0	PPM	MALE	STUDY NO. 83004	
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)	
			INITIAL	FINAL			
(CONTINUED)							
0010	W	608	127.0	389.1	262.1	11-M1-0010 MESENCHYMOA: SKIN (SUBCUTIS) PAPILLARY ADENOMA: LUNG	
0011	Y	733	116.4	444.5	328.1	11-M1-0011 LEYDIG CELL TUMOR: TESTES ISLET-CELL ADENOMA : PANCREAS	
0012	Y	733	115.3	475.7	360.4	11-M1-0012 LEYDIG CELL TUMOR: TESTES	
0013	W	714	111.3	554.5	443.2	11-M1-0013 LEYDIG CELL TUMOR: TESTES FIBROSARCOMA: SKIN (SUBCUTIS) MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS	
0014	Y	734	112.0	450.2	338.2	11-M1-0014 LEYDIG CELL TUMOR: TESTES HEPATOCYLLULAR ADENOMA : LIVER MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS	
0015	Y	734	103.4	381.2	277.8	11-M1-0015 ADENOMA: PITUITARY GLAND C-CELL ADENOMA: THYROID GLANDS	
0016	W	435	114.1	351.0	236.9	11-M1-0016 MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS	
0017	Y	734	122.7	504.1	381.4	11-M1-0017 LEYDIG CELL TUMOR: TESTES FIBROSARCOMA: SKIN (SUBCUTIS)	

1) FATE : W / KILLED IN EXTREMIS ; Y / KILLED ON SCHEDULE .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M1-3

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

ANIMAL		LEVEL AND SEX :		O PPM		MALE		STUDY NO. 83004	
NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR		MAJOR PATHOLOGICAL FINDINGS	REFERENCE	(APPENDIX NUMBER)
			INITIAL	FINAL	GAIN				
0018	Y	734	117.6	500.7	383.1	LEYDIG CELL TUMOR: TESTES FIBROSARCOMA: SKIN (SUBCUTIS)	11-M1-0018		
0019	Y	734	117.1	460.9	343.8	PHEOCHROMOCYTOMA: ADRENAL GLANDS LEYDIG CELL TUMOR: TESTES	11-M1-0019		
0020	Y	734	121.3	468.5	347.2	C-CELL ADENOMA: THYROID GLANDS PHEOCHROMOCYTOMA: ADRENAL GLANDS LEYDIG CELL TUMOR: TESTES FIBROSARCOMA: SKIN (SUBCUTIS) PAPILLOMA: SKIN	11-M1-0020		
0021	W	726	116.2	480.2	364.0	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS	11-M1-0021		
0022	W	670	109.9	361.1	251.2	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M1-0022		
0023	Y	734	115.1	455.4	340.3	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M1-0023		
0024	W	673	119.3	389.9	270.6	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES PHEOCHROMOCYTOMA: ADRENAL GLANDS	11-M1-0024		

1) FATE : Y / KILLED ON SCHEDULE ; W / KILLED IN EXTREMIS .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M1-4

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX :			0 PPM		MALE		STUDY NO. 83004	
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)		
			INITIAL	FINAL				
(CONTINUED)								
0024	W	673	119.3	389.9	270.6	FIBROSIS: HEART 11-M1-0024		
0025	Y	734	119.4	467.8	348.4	LEYDIG CELL TUMOR: TESTES 11-M1-0025		
0026	Y	734	109.5	514.8	405.3	ADENOMA: PITUITARY GLAND FIBROSARCOMA: SKIN (SUBCUTIS) LIPOMA: SKIN (SUBCUTIS) 11-M1-0026		
0027	W	623	106.9	480.6	373.7	LEYDIG CELL TUMOR: TESTES MESOTHELIOMA: PERITONEUM 11-M1-0027		
0028	Y	735	121.6	478.6	357.0	PHEOCHROMOCYTOMA: ADRENAL GLANDS LEYDIG CELL TUMOR: TESTES 11-M1-0028		
0029	W	356	115.0	344.6	229.6	ENCEPHALOMYELITIS: BRAIN ENCEPHALOMYELITIS: SPINAL CORD 11-M1-0029		
0030	Y	735	105.4	442.1	336.7	LEYDIG CELL TUMOR: TESTES HEPATOCELLULAR CARCINOMA : LIVER PHEOCHROMOCYTOMA: ADRENAL GLANDS 11-M1-0030		
0031	Y	735	127.8	439.1	311.3	LEYDIG CELL TUMOR: TESTES ISLET-CELL ADENOMA : PANCREAS SQUAMOUS CELL CARCINOMA : SKIN 11-M1-0031		

1) FATE : W , KILLED IN EXTREMIS ; Y , KILLED ON SCHEDULE .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M1-5
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT
INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

STUDY NO. 83004									
LEVEL AND SEX : 0 PPM MALE									
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR	MAJOR PATHOLOGICAL FINDINGS	REFERENCE	(APPENDIX NUMBER)	
			INITIAL	FINAL					
0032	Y	735	117.0	482.3	365.3	LEYDIG CELL TUMOR: TESTES PHEOCHROMOCYTOMA: ADRENAL GLANDS FIBROMA: SKIN (SUBCUTIS)	11-M1-0032		
0033	Y	735	121.3	479.3	358.0	LEYDIG CELL TUMOR: TESTES	11-M1-0033		
0034	W	686	122.0	394.2	272.2	LEYDIG CELL TUMOR: TESTES CORTICAL TUMOR: ADRENAL GLANDS MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS GRANULOMATOUS PNEUMONIA : LUNG CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY : KIDNEYS	11-M1-0034		
0035	Y	735	130.8	476.0	345.2	LEYDIG CELL TUMOR: TESTES ADENOMA: MAMMARY GLAND	11-M1-0035		
0036	Y	735	131.2	485.4	354.2	LEYDIG CELL TUMOR: TESTES	11-M1-0036		
0037	Y	735	124.7	437.7	313.0	LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS ADENOMA: PITUITARY GLAND	11-M1-0037		
0038	Y	735	116.7	480.8	364.1	LEYDIG CELL TUMOR: TESTES	11-M1-0038		
0039	Y	736	128.3	454.4	326.1	LEYDIG CELL TUMOR: TESTES ADENOMA: PITUITARY GLAND	11-M1-0039		
1) FATE : Y / KILLED ON SCHEDULE ; W / KILLED IN EXTREMIS .									
2) DAYS : AFTER START OF TREATMENT.									

APPENDIX 10-M1-6

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
0040	Y	736	116.8	486.9	370.1 LEYDIG CELL TUMOR: TESTES ADENOMA: PITUITARY GLAND	11-M1-0040
0041	Y	736	112.3	438.6	326.3 LEYDIG CELL TUMOR: TESTES	11-M1-0041
0042	Y	736	113.7	484.3	370.6 LEYDIG CELL TUMOR: TESTES	11-M1-0042
0043	W	701	124.8	435.3	310.5 TRANSITIONAL CELL CARCINOMA: KIDNEYS	11-M1-0043
0044	X	581	118.7	411.5	292.8 ADENOMA: PITUITARY GLAND	11-M1-0044
0045	Y	736	117.7	494.7	377.0 LEYDIG CELL TUMOR: TESTES	11-M1-0045
0046	Y	736	105.2	459.2	354.0 MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES C-CELL ADENOMA: THYROID GLANDS	11-M1-0046
0047	Y	736	121.9	487.1	365.2 LEYDIG CELL TUMOR: TESTES	11-M1-0047
0048	Y	736	118.8	458.8	340.0 LEYDIG CELL TUMOR: TESTES	11-M1-0048
0049	W	729	120.5	354.3	233.8 C-CELL ADENOMA: THYROID GLANDS NEUROBLASTOMA: ADRENAL GLANDS PHEOCHROMOCYTOMA: ADRENAL GLANDS ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M1-0049

1) FATE : Y , KILLED ON SCHEDULE ; W , KILLED IN EXTREMIS ; X , FOUND DEAD .
 2) DAYS : AFTER START OF TREATMENT.

APPENDIX 10-M1-7

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
0050	W	706	128.7	338.5	209.8 LEYDIG CELL TUMOR: TESTES FIBROMA: TONGUE	11-M1-0050
0051	Y	736	118.2	418.5	300.3 LEYDIG CELL TUMOR: TESTES	11-M1-0051
0052	W	347	122.2	365.9	243.7 NO SIGNIFICANT LESION	11-M1-0052

1) FATE : W , KILLED IN EXTREMIS ; Y , KILLED ON SCHEDULE .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M2-8

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

ANIMAL NUMBER		1) FATE	2) DAYS	BODY WEIGHT (G)		10 PPM	MALE	STUDY NO. 83004
				PROBABLE CAUSE OF DEATH OR				
				MAJOR PATHOLOGICAL FINDINGS				REFERENCE (APPENDIX NUMBER)
				INITIAL	FINAL			
0101		W	712	111.6	554.2	442.6		11-M2-0101
0102		Y	733	112.9	424.5	311.6		11-M2-0102
0103		Y	733	115.5	428.4	312.9		11-M2-0103
0104		Y	733	110.5	502.7	392.2		11-M2-0104
0105		W	665	125.7	302.5	176.8		11-M2-0105
0106		Y	733	119.7	454.4	334.7		11-M2-0106
0107		Y	733	115.9	482.9	367.0		11-M2-0107
0108		Y	733	118.7	449.1	330.4		11-M2-0108
0109		W	579	119.1	394.0	274.9		11-M2-0109
0110		W	721	129.2	504.8	375.6		11-M2-0110

1) FATE : W , KILLED IN EXTREMIS ; Y , KILLED ON SCHEDULE .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M2-9

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	STUDY NO. 83004 REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
0111	Y	733	113.8	465.0	351.2	11-M2-0111
0112	W	537	128.3	578.0	449.7	11-M2-0112
0113	Y	733	118.5	431.6	313.1	11-M2-0113
0114	Y	733	113.4	464.5	351.1	11-M2-0114
0115	W	711	119.9	383.2	263.3	11-M2-0115
0116	Y	734	111.1	452.5	341.4	11-M2-0116
0117	Y	734	110.3	438.5	328.2	11-M2-0117
0118	W	519	110.4	407.8	297.4	11-M2-0118
0119	W	697	111.0	276.5	165.5	11-M2-0119
1) FATE : Y , KILLED ON SCHEDULE ; W , KILLED IN <u>EXTREMIS</u> . 2) DAYS : AFTER START OF TREATMENT.						

APPENDIX 10-M2-10
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT
INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

		LEVEL AND SEX :		10	PPM	MALE	STUDY NO. 83004	
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR	MAJOR PATHOLOGICAL FINDINGS	REFERENCE	(APPENDIX NUMBER)
			INITIAL	FINAL				
(CONTINUED)								
0119	W	697	111.0	276.5	165.5	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M2-0119	
0120	Y	734	117.1	410.2	293.1		11-M2-0120	
0121	Y	734	115.0	464.2	349.2		11-M2-0121	
0122	Y	734	119.0	581.9	462.9		11-M2-0122	
0123	W	715	116.4	438.5	322.1	C-CELL ADENOMA: THYROID GLANDS LEIOMYOSARCOMA: JEJUNUM ADENOMA: PITUITARY GLAND	11-M2-0123	
0124	Y	734	117.7	443.8	326.1		11-M2-0124	
0125	W	644	114.1	408.2	294.1	MESENCHYMOMA: SKIN (SUBCUTIS) PHEOCHROMOCYTOMA: ADRENAL GLANDS ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M2-0125	
0126	W	636	118.0	319.1	201.1	MALIGNANT FIBROUS HISTIO- CYTOMA: SKIN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES	11-M2-0126	
0127	Y	734	121.2	486.2	365.0		11-M2-0127	
0128	Y	734	114.5	455.0	340.5		11-M2-0128	
0129	Y	734	112.7	469.0	356.3		11-M2-0129	

1) FATE : W , KILLED IN EXTREMIS ; Y , KILLED ON SCHEDULE .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M2-11
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT
INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

ANIMAL NUMBER		1) FATE	2) DAYS	BODY WEIGHT (G)		10 PPM	MALE	STUDY NO. 83004
				INITIAL	FINAL	GAIN	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
0130		Y	735	119.0	420.0	301.0		11-M2-0130
0131		Y	735	114.5	409.7	295.2		11-M2-0131
0132		X	488	121.7	479.3	357.6	ADENOMA: PITUITARY GLAND	11-M2-0132
0133		W	613	116.4	378.1	261.7	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES ISLET-CELL ADENOMA : PANCREAS	11-M2-0133
0134		Y	735	107.7	475.1	367.4		11-M2-0134
0135		W	666	121.3	378.3	257.0	RHABDOMYOSARCOMA : SKN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES	11-M2-0135
0136		X	438	122.4	453.3	330.9	ADENOMA: PITUITARY GLAND	11-M2-0136
0137		Y	735	108.1	422.1	314.0		11-M2-0137
0138		Y	735	119.4	475.5	356.1		11-M2-0138
0139		W	396	119.9	344.2	224.3	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS ADENOMA: PITUITARY GLAND	11-M2-0139
0140		Y	735	122.2	486.5	364.3		11-M2-0140
0141		Y	735	117.3	472.0	354.7		11-M2-0141

1) FATE : Y , KILLED ON SCHEDULE ; X , FOUND DEAD ; W , KILLED IN EXTREMIS .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M2-12

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

ANIMAL NUMBER	LEVEL AND SEX :		10 PPM		MALE		STUDY NO. 83004	
	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR	REFERENCE		
			INITIAL	FINAL				
0142	Y	735	112.8	425.6	312.8		11-M2-0142	
0143	Y	736	127.9	489.6	361.7		11-M2-0143	
0144	Y	736	128.8	467.1	338.3		11-M2-0144	
0145	Y	736	132.0	451.3	319.3		11-M2-0145	
0146	X	644	121.2	470.4	349.2	LEYDIG CELL TUMOR: TESTES	11-M2-0146	
0147	Y	736	115.4	446.0	330.6		11-M2-0147	
0148	Y	736	110.0	425.1	315.1		11-M2-0148	
0149	Y	736	112.1	444.1	332.0		11-M2-0149	
0150	W	690	132.0	384.6	252.6	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS KERATOACANTHOMA: SKIN MESOTHELIOMA: PERITONEUM LEYDIG CELL TUMOR: TESTES ADENOMA: PITUITARY GLAND	11-M2-0150	
0151	Y	736	123.5	434.9	311.4		11-M2-0151	
0152	Y	736	114.5	460.2	345.7		11-M2-0152	

1) FATE : Y , KILLED ON SCHEDULE ; X , FOUND DEAD ; W , KILLED IN EXTREMIS .

2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M3-13

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004						
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL GAIN		
0201	Y	733	113.9	370.6 256.7		11-M3-0201
0202	Y	733	118.7	465.5 346.8		11-M3-0202
0203	X	546	124.3	468.4 344.1	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES	11-M3-0203
0204	W	631	117.2	730.8 613.6	FIBROADENOMA: MAMMARY GLAND MESOTHELIOMA: PERITONEUM LEYDIG CELL TUMOR: TESTES	11-M3-0204
0205	Y	733	117.7	417.1 299.4		11-M3-0205
0206	Y	733	126.2	462.7 336.5		11-M3-0206
0207	Y	733	122.8	459.8 337.0		11-M3-0207
0208	Y	733	116.0	456.2 340.2		11-M3-0208
0209	Y	733	126.5	452.9 326.4		11-M3-0209
0210	Y	733	113.5	415.5 302.0		11-M3-0210
0211	Y	733	112.1	440.7 328.6		11-M3-0211
0212	Y	734	120.9	448.9 328.0		11-M3-0212
0213	Y	734	120.3	478.3 358.0		11-M3-0213

1) FATE : Y , KILLED ON SCHEDULE ; X , FOUND DEAD ; W , KILLED IN EXTREMIS .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M3-14
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT
INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

STUDY NO. 83004						
ANIMAL NUMBER	1) FATE	2) DAYS	LEVEL AND SEX :		100 PPM	MALE
			BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
0214	Y	734	118.4	437.7	319.3	11-M3-0214
0215	Y	734	107.8	439.9	332.1	11-M3-0215
0216	Y	734	124.2	434.9	310.7	11-M3-0216
0217	Y	734	116.1	431.5	315.4	11-M3-0217
0218	Y	734	107.4	444.4	337.0	11-M3-0218
0219	Y	734	119.1	514.6	395.5	11-M3-0219
0220	X	543	114.3	455.4	341.1	11-M3-0220
					MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES	
0221	X	641	113.3	376.3	263.0	11-M3-0221
0222	Y	734	111.0	478.6	367.6	11-M3-0222
0223	W	463	115.1	404.3	289.2	11-M3-0223
0224	Y	735	107.5	438.9	331.4	11-M3-0224
0225	Y	735	111.1	363.9	252.8	11-M3-0225
0226	Y	735	115.2	449.3	334.1	11-M3-0226
0227	Y	735	115.2	449.5	334.3	11-M3-0227
0228	Y	735	117.6	484.4	366.8	11-M3-0228
					FIBROSARCOMA: PERITONEUM	
					MESENCHYMOMA: KIDNEYS	

1) FATE : Y , KILLED ON SCHEDULE ; X , FOUND DEAD ; W , KILLED IN EXTREMIS .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M3-15
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT
INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

STUDY NO. 83004									
LEVEL AND SEX : 100 PPM MALE									
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)			
			INITIAL	FINAL					
0229	Y	735	107.7	437.4	329.7	11-M3-0229			
0230	Y	735	120.0	444.4	324.4	11-M3-0230			
0231	Y	735	129.3	480.8	351.5	11-M3-0231			
0232	Y	735	114.3	520.9	406.6	11-M3-0232			
0233	Y	735	119.2	394.7	275.5	11-M3-0233			
0234	Y	735	127.8	475.9	348.1	11-M3-0234			
0235	Y	735	127.7	472.4	344.7	11-M3-0235			
0236	Y	736	120.0	482.2	362.2	11-M3-0236			
0237	Y	736	107.2	348.4	241.2	11-M3-0237			
0238	Y	736	123.9	460.6	336.7	11-M3-0238			
0239	Y	736	113.7	486.3	372.6	11-M3-0239			
0240	Y	736	110.3	429.6	319.3	11-M3-0240			
0241	Y	736	112.8	470.5	357.7	11-M3-0241			
0242	X	473	115.5	451.4	335.9	LIPOSARCOMA: PERITONEUM			
0243	Y	736	121.7	464.5	342.8				
0244	W	694	111.2	399.5	288.3	C-CELL ADENOMA: THYROID GLANDS			
1) FATE : Y , KILLED ON SCHEDULE ; X , FOUND DEAD ; W , KILLED IN EXTREMIS .									
2) DAYS : AFTER START OF TREATMENT .									

1) FATE : Y , KILLED ON SCHEDULE ; X , FOUND DEAD ; W , KILLED IN EXTREMIS .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M3-16

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004						
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
(CONTINUED)						
0244	W	694	111.2	399.5	288.3	LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS 11-M3-0244
0245	W	671	120.4	352.3	231.9	ADENOMA: PITUITARY GLAND SQUAMOUS CELL CARCINOMA : SKIN PHEOCHROMOCYTOMA: ADRENAL GLANDS 11-M3-0245
0246	Y	736	113.6	450.6	337.0	LEYDIG CELL TUMOR: TESTES FIBROSARCOMA: SKIN (SUBCUTIS) 11-M3-0246
0247	W	540	121.9	586.5	464.6	
0248	X	705	132.1	415.5	283.4	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS SQUAMOUS CELL CARCINOMA : ORAL CAVITY LEYDIG CELL TUMOR: TESTES SQUAMOUS CELL PAPILLOMA : SKIN PHEOCHROMOCYTOMA: ADRENAL GLANDS 11-M3-0248
0249	Y	736	114.6	415.4	300.8	11-M3-0249
0250	Y	736	121.0	491.3	370.3	
0251	Y	736	108.9	445.4	336.5	

1) FATE : W , KILLED IN EXTREMIS ; Y , KILLED ON SCHEDULE ; X , FOUND DEAD .
2) DAYS : AFTER START OF TREATMENT.

APPENDIX 10-M3-17

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
0252	Y	736	116.7	472.5	355.8	11-M3-0252
1) FATE : Y , KILLED ON SCHEDULE .						
2) DAYS : AFTER START OF TREATMENT .						

STUDY NO. 83004

APPENDIX 10-M4-18

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
0301	Y	733	109.4	435.1	325.7 C-CELL ADENOMA: THYROID GLANDS LEYDIG CELL TUMOR: TESTES	11-M4-0301
0302	Y	733	121.4	446.1	324.7 MESOTHELIOMA: PERITONEUM LEYDIG CELL TUMOR: TESTES	11-M4-0302
0303	Y	733	105.0	481.0	376.0 LEYDIG CELL TUMOR: TESTES C-CELL ADENOMA: THYROID GLANDS MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS	11-M4-0303
0304	Y	733	122.7	453.1	330.4 LEYDIG CELL TUMOR: TESTES	11-M4-0304
0305	Y	733	113.4	492.4	379.0 FIBROSARCOMA: SKIN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES	11-M4-0305
0306	Y	733	122.2	473.3	351.1 FIBROADENOCARCINOMA : MAMMARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0306
0307	W	690	122.5	398.4	275.9 MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS HEMORRHAGE: BRAIN FIBROSARCOMA: SKIN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES	11-M4-0307
0308	Y	733	128.6	469.8	341.2 LEYDIG CELL TUMOR: TESTES	11-M4-0308

1) FATE : Y, KILLED ON SCHEDULE ; W, KILLED IN EXTREMIS .
 2) DAYS : AFTER START OF TREATMENT.

APPENDIX 10-M4-19

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

STUDY NO. 83004									
LEVEL AND SEX : 1000 PPM MALE									
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR	MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)		
			INITIAL	FINAL					
0309	W	574	107.9	370.1	262.2	ASTROCYTOMA: BRAIN	11-M4-0309		
0310	Y	733	112.8	486.9	374.1	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0310		
0311	W	720	119.7	402.9	283.2	MALIGNANT LYMPHOMA (HISTIOCYTIC SARCOMA) : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES	11-M4-0311		
0312	W	559	119.4	482.8	363.4	SEBACEOUS SQUAMOUS CELL CARCINOMA: SKIN LEYDIG CELL TUMOR: TESTES ADENOMA: PITUITARY GLAND	11-M4-0312		
0313	Y	733	118.9	437.3	318.4	ISLET-CELL ADENOMA : PANCREAS EXOCRINE ADENOMA : PANCREAS PHEOCHROMOCYTOMA: ADRENAL GLANDS LEYDIG CELL TUMOR: TESTES	11-M4-0313		
0314	Y	734	124.7	441.9	317.2	ADENOMA: PITUITARY GLAND PHEOCHROMOCYTOMA: ADRENAL GLANDS LIPOSARCOMA: SKIN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES	11-M4-0314		
0315	Y	734	120.4	498.0	377.6	PAPILLARY ADENOCARCINOMA : LUNG	11-M4-0315		
1) FATE : W / KILLED IN EXTREMIS ; Y / KILLED ON SCHEDULE .									
2) DAYS : AFTER START OF TREATMENT .									

1) FATE : W , KILLED IN EXTREMIS ; Y , KILLED ON SCHEDULE .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M4-20
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT
INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004									
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)			
			INITIAL	FINAL			GAIN		
(CONTINUED)									
0315	Y	734	120.4	498.0	377.6	ADENOMA: PITUITARY GLAND C-CELL ADENOMA: THYROID GLANDS 11-M4-0315			
0316	Y	734	125.4	507.1	381.7	ISLET-CELL ADENOMA : PANCREAS FIBROMA: SKIN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES 11-M4-0316			
0317	Y	734	125.3	486.3	361.0	LIPOMA: SKIN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES 11-M4-0317			
0318	W	610	111.5	479.8	368.3	MESOTHELIOMA: PERITONEUM LEYDIG CELL TUMOR: TESTES 11-M4-0318			
0319	X	706	111.6	339.5	227.9	ADENOMA: PITUITARY GLAND 11-M4-0319			
0320	Y	734	111.7	468.4	356.7	ISLET-CELL ADENOMA : PANCREAS LEYDIG CELL TUMOR: TESTES 11-M4-0320			
0321	W	711	121.2	355.9	234.7	ADENOMA: PITUITARY GLAND 11-M4-0321			
0322	W	588	119.5	408.8	289.3	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS 11-M4-0322			
0323	W	687	120.7	391.3	270.6	LEYDIG CELL TUMOR: TESTES 11-M4-0323			
0324	X	344	115.9	363.4	247.5	MALIGNANT FIBROUS HISTIO- CYTOMA: PLEURA 11-M4-0324			

1) FATE : Y , KILLED ON SCHEDULE ; W , KILLED IN EXTREMIS ; X , FOUND DEAD .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M4-21

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)
			INITIAL	FINAL		
0325	W	694	102.8	382.7	279.9 MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES	11-M4-0325
0326	Y	734	117.4	479.4	362.0 LEYDIG CELL TUMOR: TESTES	11-M4-0326
0327	Y	734	123.0	450.4	327.4 PAPILLARY ADENOMA: LUNG LEYDIG CELL TUMOR: TESTES	11-M4-0327
0328	Y	734	129.2	472.7	343.5 LEYDIG CELL TUMOR: TESTES PAPILLARY ADENOMA: LUNG	11-M4-0328
0329	W	713	119.6	406.9	287.3 MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS C-CELL ADENOMA: THYROID GLANDS ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0329
0330	Y	734	117.8	461.7	343.9 PAPILLARY ADENOMA: LUNG ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0330
0331	Y	735	119.2	504.1	384.9 ADENOMA: PITUITARY GLAND	11-M4-0331
0332	W	659	121.6	406.5	284.9 MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0332
0333	Y	735	117.8	502.8	385.0 ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0333

1) FATE : W , KILLED IN EXTREMIS ; Y , KILLED ON SCHEDULE .
2) DAYS : AFTER START OF TREATMENT .

APPENDIX 10-M4-22

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE						STUDY NO. 83004	
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	REFERENCE (APPENDIX NUMBER)	
			INITIAL	FINAL			
0334	X	649	114.8	386.8	272.0	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0334
0335	Y	735	118.6	464.8	346.2	LEYDIG CELL TUMOR: TESTES	11-M4-0335
0336	Y	735	117.7	443.1	325.4	FIBROMA: SKIN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES	11-M4-0336
0337	Y	735	119.8	477.5	357.7	PAPILLARY ADENOMA: LUNG PHEOCHROMOCYTOMA: ADRENAL GLANDS NECROSIS: ADRENAL GLANDS ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0337
0338	Y	735	114.7	487.7	373.0	C-CELL ADENOMA: THYROID GLANDS LEYDIG CELL TUMOR: TESTES	11-M4-0338
0339	W	712	112.9	377.4	264.5	LEYDIG CELL TUMOR: TESTES	11-M4-0339
0340	Y	735	115.4	500.8	385.4	PAPILLARY ADENOMA: LUNG LEYDIG CELL TUMOR: TESTES	11-M4-0340
0341	Y	735	115.3	483.8	368.5	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0341
0342	Y	736	114.0	499.7	385.7	LEYDIG CELL TUMOR: TESTES	11-M4-0342
0343	Y	736	110.1	494.9	384.8	LEYDIG CELL TUMOR: TESTES HAMARTOMA: MAMMARY GLAND	11-M4-0343

1) FATE : X , FOUND DEAD ; Y , KILLED ON SCHEDULE ; W , KILLED IN EXTREMIS .
2) DAYS : AFTER START OF TREATMENT.

APPENDIX 10-M4-23

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL MAJOR PATHOLOGICAL FINDINGS

STUDY NO. 83004									
LEVEL AND SEX : 1000 PPM MALE									
ANIMAL NUMBER	1) FATE	2) DAYS	BODY WEIGHT (G)		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS (APPENDIX NUMBER)	REFERENCE			
			INITIAL	FINAL					
0344	Y	736	114.2	483.3	369.1	LEYDIG CELL TUMOR: TESTES FIBROMA: SKIN (SUBCUTIS)	11-M4-0344		
0345	Y	736	121.7	472.2	350.5	LEYDIG CELL TUMOR: TESTES	11-M4-0345		
0346	Y	736	121.0	480.0	359.0	PAPILLARY ADENOMA: LUNG LEYDIG CELL TUMOR: TESTES	11-M4-0346		
0347	Y	736	118.2	468.4	350.2	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0347		
0348	Y	736	106.3	455.8	349.5	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES	11-M4-0348		
0349	W	729	114.9	357.1	242.2	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS NECROSIS: ADRENAL GLANDS NECROSIS: TESTES	11-M4-0349		
0350	X	728	114.5	417.2	302.7	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS ADENOMA: PITUITARY GLAND	11-M4-0350		
0351	Y	736	120.4	450.0	329.6	PHEOCHROMOCYTOMA: ADRENAL GLANDS LEYDIG CELL TUMOR: TESTES	11-M4-0351		
0352	X	711	109.5	411.3	301.8	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES	11-M4-0352		

1) FATE : Y , KILLED ON SCHEDULE ; W , KILLED IN EXTREMIS ; X , FOUND DEAD .

2) DAYS : AFTER START OF TREATMENT.

APPENDIX 11-M1-0001

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0001	Y	733	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			TRACHEA			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			SUBLINGUAL GLANDS			INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	++	
						INFILTRATION OF LEUCOCYTES FOCAL ATROPHY OF HEPATIC CELLS	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS FIBROSIS	++ ++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0001 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

PROBABLE CAUSE
OF DEATH OR MAJOR
PATHOLOGICAL FINDINGS

2)
GRADE

HISTOPATHOLOGICAL
FINDINGS

2)3)
GRADE

GROSS PATHOLOGICAL
FINDINGS

ORGAN

4)
FATE
DAYS

ANIMAL
NUMBER

0001 Y 733 KIDNEYS

PIGMENTATION (BILATERAL)
CALCIFICATION (UNILATERAL)

++
+

LEYDIG CELL TUMOR (BILATERAL)

+

ENLARGEMENT
(UNILATERAL)
ATROPHY
(UNILATERAL)
NODULE (BILATERAL)

+

+++

PROSTATIC GLAND NODULE

INFLAMMATION

++

SEMINAL VESICLE ATROPHY

+++

PITUITARY GLAND HEMORRHAGE

+

MIGRATION OF HEMOSIDERIN-LADEN
CELLS

+

EYE BALLS
GRAYISH CHANGE
(UNILATERAL)

+++

CATARACT (UNILATERAL)
CALCIFICATION, SCLERA (UNILATERAL)

+++
++

HARDERIAN GLANDS

INFILTRATION OF LEUCOCYTES
(UNILATERAL)

+

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

1) FATE : Y , KILLED ON SCHEDULE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0002
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0002	Y	733	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			HEART			FIBROSIS	+	: MULTIPLE ORGANS
			SPLEEN	ENLARGEMENT	+++	CONGESTION	+++	KERATOACANTHOMA: SKIN
			BONE MARROW			OSTEOGENESIS	+	LEYDIG CELL TUMOR: TESTES
			NASAL CAVITY			ACTIVATION OF HEMATOPOIESIS	++	
			LUNG			INFILTRATION OF LEUCOCYTES	++	
			LIVER	ENLARGEMENT	+++	CALCIFICATION OF VASCULAR WALL	+	
						FATTY DEGENERATION OF HEPATIC CELLS	+	
						PROLIFERATION OF BILE DUCT	++	
						WITH FIBROSIS		
						FOCAL ATROPHY OF HEPATIC CELLS	+	
						INFILTRATION OF LEUCOCYTES	+	
						GRANULATION	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
						FIBROSIS	+	
			KIDNEYS			CHRONIC PROGRESSIVE	+	
						GLOMERULONEPHROPATHY (BILATERAL)		
						PIGMENTATION (BILATERAL)	+	
						INFILTRATION OF LEUCOCYTES	+	
						(UNILATERAL)		
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0002 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0002	Y	733	PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			SKIN	MASS	B	KERATOACANTHOMA		
			BRAIN			PIGMENTATION	+	
			SPINAL CORD			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0003
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0003	Y	733	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN	ENLARGEMENT	+	HEMOSIDEROSIS CONGESTION	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			TRACHEA			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			SUBLINGUAL GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS GRANULATION PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ + + ++ +	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (UNILATERAL) PIGMENTATION (UNILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL)	+	LEYDIG CELL TUMOR (UNILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0003 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0003	Y	733	TESTES		+++			
				NODULE (UNILATERAL)				
			BRAIN			PIGMENTATION	+	
			SPINAL CORD			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE
 2) GRADE : NEGATIVE NOT PRESENTED
 3) GRADE OF MASS :
 A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE
 4) DAYS : AFTER START OF TREATMENT
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

APPENDIX 11-M1-0004

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0004	Y	733	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	++ +	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			TRACHEA			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	++ +	
			KIDNEYS			INFILTRATION OF LEUCOCYTES SMALL GRANULOMA	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) CALCIFICATION (UNILATERAL)	++ +	
			TESTES	ATROPHY (UNILATERAL)	+	LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0004 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0004	Y	733	TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+			
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			ADRENAL GLANDS			PIGMENTATION (UNILATERAL)	+	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			BRAIN			PIGMENTATION	+	
			SPINAL CORD			PIGMENTATION	+	

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0005
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0005	Y	733	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS MESOTHELIOMA: PERITONEUM
			PERITONEUM	NODULE	+++	MESOTHELIOMA		
			HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	
			SPLEEN	ENLARGEMENT	+++	CONGESTION FIBROSIS CAPSULITIS	+++ + +	
			BONE MARROW			OSTEOGENESIS ACTIVATION OF HEMATOPOIESIS	+ ++	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	ROUGHNESS OF SURFACE ENLARGEMENT	+ +++	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS FOCAL ATROPHY OF HEPATIC CELLS GRANULATION ANGIECTASIA	++ ++ + ++ +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0005 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0005	Y	733	KIDNEYS					
			TESTES	NODULE (BILATERAL)	++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND			ATROPHY	+	PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)
			SEMINAL VESICLE			ATROPHY	+	
			BRAIN			PIGMENTATION	+	
			SPINAL CORD			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0006
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0006	Y	733	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			HEMOSIDEROSES CONGESTION	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			ADENOMATOSIS ALVEOLAR BRONCHITIS	+	
			PAROTID GLANDS			INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0006 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0006	Y	733	KIDNEYS					
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)
			SEMINAL VESICLE	ATROPHY	+++			
			BRAIN					
			SPINAL CORD					

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0007
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0007	W	721	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS	+++	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			TRACHEA			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			SUBLINGUAL GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			LIVER	YELLOWISH CHANGE	+	FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0007 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0007	W	721	KIDNEYS					
			TESTES	ATROPHY (BILATERAL) NODULE (UNILATERAL)	++ ++	PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) CALCIFICATION (BILATERAL)	+++ + +	
			SEMINAL VESICLE	ATROPHY	+	ATROPHY (UNILATERAL) HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)	+	
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ +	ADENOMA	+	
			MAMMARY GLAND			DILATATION OF GLAND	++	
			BRAIN	IMPRESSION	+	DILATATION OF CEREBRAL VENTRICLE	++	

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0008

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0008	W	687	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS FIBROSARCOMA: SKIN (SUBCUTIS)
			THORACIC CAVITY	PLEURAL FLUID	+++			
			HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+	
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (SUBMAXI.) SPLEEN			LYMPHADENITIS	+	
			BONE MARROW		+++	ATROPHY	++	
			NASAL CAVITY			ACTIVATION OF HEMATOPOIESIS OSTEOGENESIS	+	
			LUNG	REDDISH CHANGE	+	INFILTRATION OF LEUCOCYTES	+	
			LIVER	YELLOWISH CHANGE ROUGHNESS OF SURFACE	+	FATTY DEGENERATION OF HEPATIC CELLS FIBROSIS HEMORRHAGE PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ +++ ++ +++ ++	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT

++ , MODERATE

+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0008 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	4) ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0008	W 687	KIDNEYS			PIGMENTATION (BILATERAL)	+	
		TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+ +++	LEYDIG CELL TUMOR (BILATERAL)		
		SEMINAL VESICLE	ATROPHY	+	ATROPHY	+	
		SKIN (SUBCUTIS)	MASS	C	FIBROSARCOMA		
		BRAIN			HEMORRHAGE	+	

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0009
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0009	Y	733	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			TRACHEA			CYSTIC DILATATION OF GLAND	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES ANGIECTASIA	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL)	+	LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0009 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0009	Y	733	TESTES					
				ENLARGEMENT (UNILATERAL)	+			
				NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			BULBOURETHRAL GLAND	ENLARGEMENT	+	CONGESTION	+	

1) FATE : Y , KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0010
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0010	W	608	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+	LEYDIG CELL TUMOR: TESTES MESENCHYMOMA: SKIN (SUBCUTIS)
			LYMPH NODES (SUBMAXI.) SPLEEN	ENLARGEMENT	+			PAPILLARY ADENOMA: LUNG
			BONE MARROW			HEMOSIDEROSIS	+	
			NASAL CAVITY			OSTEOGENESIS	+	
			LUNG			INFILTRATION OF LEUCOCYTES	+	
			STOMACH			PAPILLARY ADENOMA VASCULITIS	++	
			SUBLINGUAL GLANDS			EROSION	+	
			PAROTID GLANDS	ENLARGEMENT (UNILATERAL)	+	INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA CHOLANGIOFIBROSIS INFILTRATION OF LEUCOCYTES	+++ + + +	
			PANCREAS			DILATATION OF DUCT	+	
			KIDNEYS			CHRONIC PROGRESSIVE	+	

1) FATE : W / KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0010 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0010	W	608	KIDNEYS			GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) CALCIFICATION (UNILATERAL)	+ +	
			TESTES	ATROPHY (BILATERAL) NODULE (BILATERAL)	+ ++	LEYDIG CELL TUMOR (BILATERAL)		
			SEMINAL VESICLE	ATROPHY	+	ATROPHY	+	
			SKIN (SUBCUTIS)	MASS	B	MESENCHYMOMA		
			HARDERIAN GLANDS	REDDISH CHANGE (UNILATERAL)	+	INFLAMMATION (UNILATERAL)	++	
			BRAIN			HEMORRHAGE	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

- A , SMALL AND/OR SINGULAR
- B , MEDIAL AND/OR SPORADIC
- C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

- + , SLIGHT
- ++ , MODERATE
- +++ , SEVERE

APPENDIX 11-M1-0011
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0011	Y	733	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	ISLET-CELL ADENOMA : PANCREAS
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES GRANULATION	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS HYPERPLASTIC NODULE FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++	
			PANCREAS			ISLET-CELL ADENOMA	+	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ENLARGEMENT	+	LEYDIG CELL TUMOR (UNILATERAL)		

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0011 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0011	Y	733	TESTES	(UNILATERAL) ATROPHY (UNILATERAL) NODULE (UNILATERAL)	+ +++	ATROPHY (UNILATERAL)	+	
			PROSTATIC GLAND	ATROPHY	+++	INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0012

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0012	Y	733	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	++ +	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			TRACHEA			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	ENLARGEMENT	+	FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES SMALL GRANULOMA	++ ++ ++ ++ ++ ++	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	++ ++	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0012 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0012	Y	733	KIDNEYS					
			TESTES	NODULE (BILATERAL)	+++	INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			PROSTATIC GLAND			LEYDIG CELL TUMOR (BILATERAL)		
			SEMINAL VESICLE	ATROPHY	+++	INFLAMMATION	+	
			BRAIN			ATROPHY	+	
						PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0013
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0013	W	714	MULTIPLE ORGANS					
			SPLEEN	ENLARGEMENT	++			MONONUCLEAR CELL LEUKEMIA
			BONE MARROW					PROLIFERATION OF RETICULAR CELLS EXTRAMEDULLARY HEMATOPOIESIS
			NASAL CAVITY					ACTIVATION OF HEMATOPOIESIS
			LARYNGOPHARYNX					INFILTRATION OF LEUCOCYTES
			LUNG					CYSTIC DILATATION OF GLAND
								HEMORRHAGE
								CALCIFICATION OF VASCULAR WALL
								ANEMIA
			LIVER	DISCOLORATION	+++			FOCAL ATROPHY OF HEPATIC CELLS INFILTRATION OF LEUCOCYTES PROLIFERATION OF BILE DUCT SMALL GRANULOMA
			KIDNEYS					CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)
			TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL)	+++ +++			LEYDIG CELL TUMOR (BILATERAL)

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0013 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0013	W	714	TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE			ATROPHY	++	
			SKIN (SUBCUTIS)	MASS	C	FIBROSARCOMA		

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0014
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0014	Y	734	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		LEYDIG CELL TUMOR: TESTES HEPATOCELLULAR ADENOMA
			HEART			FIBROSIS	+	: LIVER
			LYMPH NODES (PULM.HILUS)	ENLARGEMENT	+	BLOOD ABSORPTION	+	MONONUCLEAR CELL LEUKEMIA
			SPLEEN	ENLARGEMENT	++	CONGESTION HEMOSIDEROSIS	+++ +	: MULTIPLE ORGANS
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			SWELLING OF ALVEOLAR EPITHELIUM	+	
			LIVER	ENLARGEMENT ROUGHNESS OF SURFACE	+++ +	FATTY DEGENERATION OF HEPATIC CELLS HEPATOCELLULAR ADENOMA FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA ANGIECTASIA PROLIFERATION OF BILE DUCT	++ + + ++ ++	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0014 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0014	Y	734	KIDNEYS					
			TESTES	ATROPHY (BILATERAL)	+	PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
				NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			BRAIN					
						ATROPHY	+	
						PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0015
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0015	Y	734	THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	ADENOMA: PITUITARY GLAND C-CELL ADENOMA: THYROID GLANDS
			LYMPH NODES (PULM.HILUS)			BLOOD ABSORPTION	++	
			LYMPH NODES (MESENT.)			CYST	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	++	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	DISCOLORATION	+	FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			URINARY BLADDER			EOSINOPHILIC COAGULATIVE SUBSTANCE	+	

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0015 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0015	Y	734	TESTES	ATROPHY (BILATERAL) NODULE (BILATERAL)	+++ ++	PERIVASCULITIS (BILATERAL) ATROPHY (BILATERAL) CALCIFICATION (BILATERAL)	++ + +	
			SEMINAL VESICLE	ENLARGEMENT	+++			
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ +	ADENOMA		
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	++	C-CELL ADENOMA (UNILATERAL)		
			MAMMARY GLAND			DILATATION OF GLAND	+	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN	IMPRESSION	+	DILATATION OF CEREBRAL VENTRICLE PIGMENTATION	++ +	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0016
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0016	W	435	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS
			ABDOMINAL CAVITY	HEMORRHAGE	++			
			HEART			FIBROSIS	++	
			THYMUS	ENLARGEMENT	+			
			LYMPH NODES (GENERAL)	ENLARGEMENT	++			
			SPLEEN	ENLARGEMENT	+++			
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	++	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	HEMORRHAGE	+			
			STOMACH			ULCER	+	
			LIVER	ENLARGEMENT ROUGHNESS OF SURFACE	+++ +	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT	++ +	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES			HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+, SLIGHT
++, MODERATE
+++, SEVERE

APPENDIX 11-M1-0016 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0016	W	435	TESTES			ATROPHY (BILATERAL)	+	
			PITUITARY GLAND			SWELLING OF BASOPHILIC CELLS	+	
			THYROID GLANDS			ENLARGEMENT OF FOLLICLE (BILATERAL)	+	
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	++	
			BRAIN	HEMORRHAGE	+++	LEUKEMIC EMBOLISM	+++	
			SPINAL CORD			LEUKEMIC EMBOLISM	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0017
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0017	Y	734	HEART		FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
		THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	FIBROSARCOMA: SKIN (SUBCUTIS)
		SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	++ +	
		BONE MARROW			ACTIVATION OF HEMATOPOIESIS OSTEOGENESIS	++ +	
		NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
		LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
		LUNG			CALCIFICATION OF VASCULAR WALL	+	
		LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ ++ +	
		KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	
		TESTES	ATROPHY (UNILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

LEVEL AND SEX :	0	PPM	MALE
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STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0017	Y	734	TESTES					
				NODULE (BILATERAL)	+++			
			PROSTATIC GLAND				+	
			SEMINAL VESICLE				++	
			ADRENAL GLANDS				+	
			SKIN (SUBCUTIS)	MASS				
			BRAIN				+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

(4) DAYS : AFTER START OF TREATMENT

SEVERITY	MODERATE	SEVERE
++		
+++		

APPENDIX 11-M1-0018
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0018	Y	734	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	FIBROSARCOMA: SKIN (SUBCUTIS)
			LYMPH NODES (PULM. HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	+	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			SUBLINGUAL GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			PAROTID GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0018 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0018	Y	734	KIDNEYS					
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	PIGMENTATION (BILATERAL)
			PROSTATIC GLAND	ATROPHY	+		+	INFILTRATION OF LEUCOCYTES (UNILATERAL)
			SEMINAL VESICLE	ATROPHY	+	ATROPHY	+	
			ADRENAL GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			SKIN (SUBCUTIS)	MASS	C	FIBROSARCOMA		
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0019

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0019	Y	734	HEART			FIBROSIS	+	PHEOCHROMOCYTOMA: ADRENAL GLANDS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (SUBMAXI.) SPLEEN			CYST	+	
						HEMOSIDEROSIS	++	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES SMALL GRANULOMA	++ ++ ++ + +	
			KIDNEYS			ROUGHNESS OF SURFACE (BILATERAL)	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES			ATROPHY (UNILATERAL)	+	LEYDIG CELL TUMOR (BILATERAL)

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0019 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0019	Y	734	TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			ADRENAL GLANDS			PHEOCHROMOCYTOMA (UNILATERAL) HYPERPLASTIC NODULE (UNILATERAL)	+	
			SKIN			FOLLICULITIS	++	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0020

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0020	Y	734	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	C-CELL ADENOMA: THYROID GLANDS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	PHEOCHROMOCYTOMA: ADRENAL GLANDS
			SPLEEN			EXTRAMEDULLARY HEMATOPOIESIS CONGESTION HEMOSIDEROSES	++ +	LEYDIG CELL TUMOR: TESTES FIBROSARCOMA: SKIN (SUBCUTIS)
			BONE MARROW			OSTEOGENESIS	+	PAPILLOMA: SKIN
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES SMALL GRANULOMA	++ ++ +	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	++ +	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+, SLIGHT
++, MODERATE
+++, SEVERE

APPENDIX 11-M1-0020 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0020	Y	734	KIDNEYS					
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+++ +++			INFILTRATION OF LEUCOCYTES (BILATERAL) LEYDIG CELL TUMOR (BILATERAL)
			PROSTATIC GLAND					
			SEMINAL VESICLE	ATROPHY	+++			HYPERPLASIA OF MUCOSAL EPITHELIUM ATROPHY
			THYROID GLANDS	ENLARGEMENT (BILATERAL)	++			C-CELL ADENOMA (BILATERAL)
			ADRENAL GLANDS					PHEOCHROMOCYTOMA (UNILATERAL)
			SKIN	NODULE	+			PAPILLOMA
			SKIN (SUBCUTIS)	MASS	C			FIBROSARCOMA
			HARDERIAN GLANDS					INFILTRATION OF LEUCOCYTES (UNILATERAL)
			BRAIN					PIGMENTATION

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0021

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0021	W	726	MULTIPLE ORGANS					
			HEART			MONONUCLEAR CELL LEUKEMIA		ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS
			SPLEEN			FIBROSIS	+	
						HEMOSIDEROSIS	++	
			BONE MARROW			EXTRAMEDULLARY HEMATOPOIESIS	+	
						OSTEOGENESIS	+	
			LIVER	MASS YELLOWISH CHANGE	A +	FATTY DEGENERATION OF HEPATIC CELLS HYPERPLASTIC NODULE PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ ++ ++ +	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	++ +	
			TESTES	NODULE (BILATERAL) ATROPHY (UNILATERAL)	+++ +	LEYDIG CELL TUMOR (UNILATERAL)		
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	+++ +++	ADENOMA		
			MAMMARY GLAND			DILATATION OF GLAND	+	
			BRAIN	IMPRESSION	+	PIGMENTATION	+	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0021 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0021	W	726	BRAIN			HEMORRHAGE	+	

1) FATE : W , KILLED IN EXTREMIS , 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0022
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0022	W	670	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (PULM. HILUS) SPLEEN	ENLARGEMENT	+	BLOOD ABSORPTION HEMOSIDEROISIS EXTRAMEDULLARY HEMATOPOIESIS	++ +	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			STOMACH			HYPERPLASIA OF FORESTOMACH MUCOSAL EPITHELIUM	+	
			LIVER	YELLOWISH CHANGE	+	FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ +++ +	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	++	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+++ +	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+, SLIGHT
++, MODERATE
+++, SEVERE

APPENDIX 11-M1-0022 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0022	W	670	KIDNEYS					
			TESTES	ATROPHY (BILATERAL) NODULE (BILATERAL)	+	INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			PITUITARY GLAND	ENLARGEMENT	+++	LEYDIG CELL TUMOR (UNILATERAL)		
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	+	ADENOMA		
			SKIN	MASS	A	KERATOSIS	++	
			MAMMARY GLAND			DILATATION OF GLAND	+	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN	IMPRESSION	++	DILATATION OF CEREBRAL VENTRICLE	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0023
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0023	Y	734	HEART			FIBROSIS	++	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			CONGESTION HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+ + +	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			INFILTRATION OF LEUCOCYTES PROLIFERATION OF BILE DUCT WITH FIBROSIS SMALL GRANULOMA	+ + + +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS INFILTRATION OF LEUCOCYTES	+ +	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + + +	
			TESTES	NODULE (BILATERAL)	++	LEYDIG CELL TUMOR (BILATERAL)		
			PITUITARY GLAND	ENLARGEMENT	+++	ADENOMA		

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0023 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0023	Y	734	PITUITARY GLAND	HEMORRHAGE	+			
			MAMMARY GLAND			DILATATION OF GLAND	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0024
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0024	W 673	HEART	GRAYISH CHANGE	+	FIBROSIS	+++	ADENOMA: PITUITARY GLAND
		THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES PHEOCHROMOCYTOMA: ADRENAL GLANDS
		SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	FIBROSIS: HEART
		BONE MARROW			OSTEOGENESIS	+	
		NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
		LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
		LUNG			CALCIFICATION OF VASCULAR WALL	+	
		LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT INFILTRATION OF LEUCOCYTES	++ ++ ++ ++ +	
		PANCREAS			ATROPHY OF PANCREATIC ACINUS FIBROSIS	++ +	
		KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	++ +	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0024 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0024	W	673	KIDNEYS			INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ENLARGEMENT (UNILATERAL) ATROPHY (UNILATERAL) NODULE (UNILATERAL)	+++ +++ +	LEYDIG CELL TUMOR (BILATERAL)		
			SEMINAL VESICLE			ATROPHY	+	
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ +++	ADENOMA		
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	++	PHEOCHROMOCYTOMA (UNILATERAL)		
			MAMMARY GLAND			DILATATION OF GLAND	++	
			BRAIN	IMPRESSION	++	DILATATION OF CEREBRAL VENTRICLE HEMORRHAGE	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0025
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0025	Y	734	HEART			MYOCARDITIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	++ +	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ ++ +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	
			TESTES	ENLARGEMENT (UNILATERAL)	+	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0025 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0025	Y	734	TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			THYROID GLANDS		.	HYPERPLASIA OF C-CELLS (UNILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE
4) DAYS : AFTER START OF TREATMENT
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0026
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0026	Y	734	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	FIBROSARCOMA: SKIN (SUBCUTIS)
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	LIPOMA: SKIN (SUBCUTIS)
						HEMOSIDEROSIS	++	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS	+	
						SMALL GRANULOMA	++	
						FOCAL ATROPHY OF HEPATIC CELLS	+	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
						PIGMENTATION (BILATERAL)	++	
						INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ATROPHY (BILATERAL)	+	ATROPHY (BILATERAL)	+	

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0026 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

1) ANIMAL FATE NUMBER	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0026	Y	734	PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ +	ADENOMA	
			SKIN (SUBCUTIS)	MASS	C	FIBROSARCOMA LIPOMA	
			MAMMARY GLAND			DILATATION OF GLAND	+
			EYE BALLS	ENLARGEMENT (UNILATERAL)	+	CATARACT (UNILATERAL)	+
			BRAIN			DILATATION OF CEREBRAL VENTRICLE	+

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0027
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0027	W	623	ABDOMINAL CAVITY ASCITES		+++			LEYDIG CELL TUMOR: TESTES MESOTHELIOOMA: PERITONEUM
			PERITONEUM	NODULE	+++	MESOTHELIOOMA		
			HEART			FIBROSIS	+	
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			CONGESTION EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LIVER	YELLOWISH CHANGE	+	FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++	
			KIDNEYS	BLACKISH CHANGE (BILATERAL)	+++	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES	ENLARGEMENT (UNILATERAL) ATROPHY (UNILATERAL)	++ +++	LEYDIG CELL TUMOR (BILATERAL)	+++	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0027 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0027	W	623	TESTES	NODULE (BILATERAL)	+++			
			EPIDIDYMIS			ATROPHY (BILATERAL)	+	
			SEMINAL VESICLE			ATROPHY	+	
			THYROID GLANDS	CYST (UNILATERAL)	+	CYST (UNILATERAL)	+	
			EYE BALLS	HEMORRHAGE (UNILATERAL)	+	CATARACT (UNILATERAL) HEMORRHAGE (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0028

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0028	Y	735	HEART			FIBROSIS	+	PHEOCHROMOCYTOMA: ADRENAL
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			CONGESTION	+	
						HEMOSIDEROSIS	+	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			INFILTRATION OF LEUCOCYTES	+	
			TRACHEA			INFILTRATION OF LEUCOCYTES	+	
			LUNG			INFILTRATION OF LEUCOCYTES	+	
						CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FOCAL ATROPHY OF HEPATIC CELLS	+	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	++	
						INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0029	W	356	SPLEEN			HEMOSIDEROSIS CONGESTION	+++ ++	ENCEPHALOMYELITIS: BRAIN ENCEPHALOMYELITIS: SPINAL CORD
			NASAL CAVITY					
			LIVER	DISCOLORATION	+	INFILTRATION OF LEUCOCYTES	+	
			URETER			PROLIFERATION OF BILE DUCT INFILTRATION OF LEUCOCYTES	+	
			TESTES	NODULE (UNILATERAL)	+		+	
						HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)		
			PITUITARY GLAND					
			HARDERIAN GLANDS			HYPERPLASIA OF CHROMOPHOBIC CELLS	+	
						INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			ENCEPHALOMYELITIS	+	
						PROLIFERATION OF GLIA CELLS	+	
						PERIVASCULITIS	+	
			SPINAL CORD			ENCEPHALOMYELITIS	+	

11) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS : -----

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0030

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0030	Y	735	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	HEPATOCELLULAR CARCINOMA : LIVER
			SPLEEN			HEMOSIDEROSIS	+	PHEOCHROMOCYTOMA: ADRENAL GLANDS
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	MASS	A	HEPATOCELLULAR CARCINOMA FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			SEMINAL VESICLE	ATROPHY	++	ATROPHY	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0030 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0030	Y	735	ADRENAL GLANDS			PHEOCHROMOCYTOMA (UNILATERAL)		
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			HYPERSECRETION (UNILATERAL)	+	
						PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0031

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0031	Y	735	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	ISLET-CELL ADENOMA : PANCREAS
			SPLEEN			CONGESTION EXTRAMEDULLARY HEMATOPOIESIS	+	SQUAMOUS CELL CARCINOMA : SKIN
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
			LUNG			SWELLING OF ALVEOLAR EPITHELIUM CALCIFICATION OF VASCULAR WALL	+	
			LIVER			SMALL GRANULOMA FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES FATTY DEGENERATION OF HEPATIC CELLS	++ + + + +	
			PANCREAS			ISLET-CELL ADENOMA ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0031 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0031	Y	735	KIDNEYS					
			TESTES	NODULE (BILATERAL)	+++			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN	ABSCESS	+++			
			HARDERIAN GLANDS					
			BRAIN					

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0032

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0032	Y	735	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	PHEOCHROMOCYTOMA: ADRENAL GLANDS
			SPLEEN			HEMOSIDEROUSIS	+	FIBROMA: SKIN (SUBCUTIS)
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS HYPERPLASTIC NODULE GRANULATION PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ + + +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	

TESTES ENLARGEMENT

+++ LEYDIG CELL TUMOR (BILATERAL)

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+, SLIGHT
++, MODERATE
+++, SEVERE

APPENDIX 11-M1-0032 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0032	Y	735	TESTES	(UNILATERAL) NODULE (BILATERAL)	+++			
			PROSTATIC GLAND					HYPERPLASIA OF MUCOSAL EPITHELIUM +
			SEMINAL VESICLE	ATROPHY	+++			ATROPHY +
			THYROID GLANDS					HYPERPLASIA OF C-CELLS (BILATERAL) ++
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	+++			PHEOCHROMOCYTOMA (UNILATERAL)
			SKIN (SUBCUTIS)	MASS				FIBROMA
			HARDERIAN GLANDS					INFILTRATION OF LEUCOCYTES (UNILATERAL) +
			BRAIN					PIGMENTATION +

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M1-0033

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0033	Y	735	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			SWELLING OF ALVEOLAR EPITHELIUM CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS HYPERPLASTIC NODULE SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			TESTES		+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE		+++	ATROPHY	+	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0034

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0034	W	686	MULTIPLE ORGANS					
			HEART					LEYDIG CELL TUMOR: TESTES
			THYMUS				+	CORTICAL TUMOR: ADRENAL GLANDS
							+	MONONUCLEAR CELL LEUKEMIA
			LYMPH NODES (PULM.HILUS)	ENLARGEMENT	+++	HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	: MULTIPLE ORGANS
			SPLEEN	ENLARGEMENT	+++		+	GRANULOMATOUS PNEUMONIA
			BONE MARROW					: LUNG
			NASAL CAVITY					CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY
			LUNG	HEMORRHAGE YELLOWISH CHANGE	++ +++		+	: KIDNEYS
			LIVER	ENLARGEMENT ROUGHNESS OF SURFACE YELLOWISH CHANGE	+++ + +	ACTIVATION OF HEMATOPOIESIS OSTEOGENESIS INFILTRATION OF LEUCOCYTES GRANULOMATOUS PNEUMONIA HEMORRHAGE	+++ + +	
			PANCREAS			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT MIGRATION OF HEMOSIDERIN-LADEN CELLS	+++ +++ +	
			KIDNEYS			ATROPHY OF PANCREATIC ACINUS CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++ +++	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ / SLIGHT

++ / MODERATE

+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR

B / MEDIAL AND/OR SPORADIC

C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0034 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0034	W	686	KIDNEYS					
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+ ++			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) VACUOLAR DEGENERATION (BILATERAL)
			SEMINAL VESICLE			ATROPHY	+	
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	+++	CORTICAL TUMOR (UNILATERAL)		
			MAMMARY GLAND			DILATATION OF GLAND	+	
			BRAIN			PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0035

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL 'FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0035	Y	735	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	ADENOMA: MAMMARY GLAND
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	++	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
						SMALL GRANULOMA	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ ++	
			TESTES		NODULE (BILATERAL) +++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0035 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0035	Y	735	PROSTATIC GLAND	NODULE	+++	HYPERPLASIA OF MUCOSAL EPITHELIUM	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			PITUITARY GLAND	HEMORRHAGE	+	HEMORRHAGE	+	
			MAMMARY GLAND			ADENOMA		
						DILATATION OF GLAND	+	
			BRAIN			PIGMENTATION	+	
			SPINAL CORD			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE . 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0036
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004						
ANIMAL NUMBER	1) FATE DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE
PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS						
0036	Y	735	HEART		FIBROSIS INFILTRATION OF LEUCOCYTES	+
			THYMUS			+
			LYMPH NODES (PULM. HILUS) SPLEEN		HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+
					BLOOD ABSORPTION	++
					CONGESTION	+
					HEMOSIDEROSIS	+
					EXTRAMEDULLARY HEMATOPOIESIS	+
			BONE MARROW		OSTEOGENESIS	+
			NASAL CAVITY		INFILTRATION OF LEUCOCYTES	+
			LUNG		CALCIFICATION OF VASCULAR WALL	+
			LIVER		FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA INFILTRATION OF LEUCOCYTES CHOLANGIOFIBROSIS	+ + + + +
			PANCREAS		ATROPHY OF PANCREATIC ACINUS	++
			KIDNEYS		CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0036 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0036	Y	735	KIDNEYS					
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			THYROID GLANDS			HYPERPLASIA OF C-CELLS (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	
						PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0037
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0037	Y	735	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS ADENOMA: PITUITARY GLAND
			HEART			FIBROSIS	+	
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (THYMIC)	+				
			LYMPH NODES (PAN.-DUO.)	+				
			SPLEEN	+++ ENLARGEMENT ROUGHNESS OF SURFACE	+	RUPTURE HEMORRHAGE NECROSIS CONGESTION CAPSULITIS	++ +++ +++ ++ +	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	+		CALCIFICATION OF VASCULAR WALL	+	
			LIVER	+		FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +++ +	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0037 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004				PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	
ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2) 3) GRADE GRADE
0037	Y	735	LIVER		
			PANCREAS		
				SWELLING OF KUPFFER CELLS	+
				ATROPHY OF PANCREATIC ACINUS FIBROSIS	+
			KIDNEYS		
				GRAYISH CHANGE (BILATERAL)	++
				CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+++
				PIGMENTATION (BILATERAL)	++
				INFILTRATION OF LEUCOCYTES (BILATERAL)	+
				NECROSIS (BILATERAL)	+++
			TESTES		
				SOFTENING (BILATERAL)	+
				ATROPHY (UNILATERAL)	++
				LEYDIG CELL TUMOR (UNILATERAL)	
			SEMINAL VESICLE	ATROPHY	+
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+
			ADRENAL GLANDS		
				VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+
			MAMMARY GLAND		
				DILATATION OF GLAND	+
			BRAIN		
				DILATATION OF CEREBRAL VENTRICLE	+

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0038

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0038	Y	735	THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	NODULE	+	FATTY DEGENERATION OF HEPATIC CELLS HYPERPLASTIC NODULE FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		
			PROSTATIC GLAND			HYPERPLASIA OF MUCOSAL EPITHELIUM	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0038 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0038	Y	735	SEMINAL VESICLE	ATROPHY	++	ATROPHY	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY OF METHANOL IN FISCHER RAT

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0039	Y	736	THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES ADENOMA: PITUITARY GLAND
			SPLEEN			HEMOSIDEROSIS	+	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			ADENOMATOSIS	+	
			LIVER			CALCIFICATION OF VASCULAR WALL	+	
						FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS EXTRAMEDULLARY HEMATOPOIESIS CHOLANGIOFIBROSIS INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	NODULE (BILATERAL) ENLARGEMENT (BILATERAL)	+++ ++	LEYDIG CELL TUMOR (BILATERAL)		

11) FATE : Y , KILLED ON SCHEDULE

(4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT

	++	/	MODERATE
++			SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0039 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0039	Y	736	PROSTATIC GLAND			INFLAMMATION HYPERPLASIA OF MUCOSAL EPITHELIUM	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			PITUITARY GLAND			ADENOMA		
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			SKIN	SCAB	+	KERATOSIS	++	
			SKIN (SUBCUTIS)	NODULE	+	INFLAMMATION	+	
			MAMMARY GLAND			DILATATION OF GLAND	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0040

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0040	Y	736	HEART			FIBROSIS		LEYDIG CELL TUMOR: TESTES ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	++	
			SPLEEN			CONGESTION HEMOSIDEROSIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA EXTRAMEDULLARY HEMATOPOIESIS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++	
			TESTES	ENLARGEMENT (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT

++ , MODERATE

+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0040 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0040	Y	736	TESTES					
			SEMINAL VESICLE	NODULE (BILATERAL)	+++			
			PITUITARY GLAND	ATROPHY	+++	ATROPHY	+	
				HEMORRHAGE ENLARGEMENT	+	ADENOMA		
			SKIN	MASS	A	KERATOSIS	+	
			BRAIN			PIGMENTATION DILATATION OF CEREBRAL VENTRICLE	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0041
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0041	Y	736	THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			LUNG			ADENOMATOSIS OSSEOUS TISSUE CALCIFICATION OF VASCULAR WALL	+	
			LIVER		+	FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES		+++	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	+	
			PROSTATIC GLAND		+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			SEMINAL VESICLE		+++	HYPERPLASIA OF MUCOSAL EPITHELIUM ATROPHY	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0041 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0041	Y	736	BRAIN				+	
			SPINAL CORD				+	

PIGMENTATION

PIGMENTATION

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0042
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0042	Y	736	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	++	
			SPLEEN			CONGESTION HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+ + +	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+ + + + + +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0042 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0042	Y	736	KIDNEYS					
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	+++ +++			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) + +
			PROSTATIC GLAND					LEYDIG CELL TUMOR (BILATERAL) + +
			SEMINAL VESICLE	ATROPHY	+++			INFLAMMATION ++ ATROPHY ++
			THYROID GLANDS					HYPERPLASIA OF C-CELLS (UNILATERAL) +
			BRAIN					PIGMENTATION +
			SPINAL CORD					PIGMENTATION +

1) FATE : Y / KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE
3) GRADE OF MASS :
A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0043

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) W	701	HEART	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0043	W									TRANSITIONAL CELL CARCINOMA: KIDNEYS
						ENLARGEMENT	++	FIBROSIS	++	
								EXTRAMEDULLARY HEMATOPOIESIS	++	
								ACTIVATION OF HEMATOPOIESIS OSTEOGENESIS	+	
								INFILTRATION OF LEUCOCYTES	+	
								CYSTIC DILATATION OF GLAND	+	
						ADHESION	+	ALVEOLITIS PLEURISY CALCIFICATION OF VASCULAR WALL	+	
								FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
						MASS (UNILATERAL)	C	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (UNILATERAL) TRANSITIONAL CELL CARCINOMA (UNILATERAL)	+	
						ATROPHY (BILATERAL)	+++	ATROPHY (BILATERAL) HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)	+++ +	
						ADRENAL GLANDS		VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0043 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0043	W	701	MAMMARY GLAND			DILATATION OF GLAND	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0044
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0044	X	581	LYMPH NODES (PULM. HILUS) SPLEEN			BLOOD ABSORPTION	+	ADENOMA: PITUITARY GLAND
						EXTRAMEDULLARY HEMATOPOIESIS HEMOSIDEROSIS	+	
			NASAL CAVITY				+++	
			LUNG			INFILTRATION OF LEUCOCYTES	+	
			LIVER		+++	CALCIFICATION OF VASCULAR WALL	+	
						FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	++	
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ +	ADENOMA	+	
			BRAIN	IMPRESSION	+	HEMORRHAGE	+	

1) FATE : X / FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0045

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0045	Y	736	HEART			INFILTRATION OF LEUCOCYTES	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+++	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++	
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (UNILATERAL) SOFTENING (UNILATERAL)	+++ +++ +	LEYDIG CELL TUMOR (UNILATERAL) ATROPHY (UNILATERAL) PERIVASCULITIS (UNILATERAL)	+	
			SEMINAL VESICLE	ATROPHY	++	ATROPHY	+	
			HARDERIAN GLANDS			INFLAMMATION (UNILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0045 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0045	Y	736	BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE
 2) GRADE : NEGATIVE NOT PRESENTED
 3) GRADE OF MASS :
 A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE
 4) DAYS : AFTER START OF TREATMENT
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

APPENDIX 11-M1-0046
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0046	Y	736	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			HEART			FIBROSIS	+	: MULTIPLE ORGANS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	C-CELL ADENOMA: THYROID GLANDS
			BONE MARROW			OSTEOGENESIS ACTIVATION OF HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	++	
			PANCREAS			INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			ATROPHY OF PANCREATIC ACINUS	++	
			TESTES			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			ENLARGEMENT (BILATERAL)	++		LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0046 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0046	Y	736	TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND					
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	+++	C-CELL ADENOMA (UNILATERAL)		
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED	3) GRADE OF MASS : :
4) DAYS : AFTER START OF TREATMENT	+ , SLIGHT ++ , MODERATE +++ , SEVERE	A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0047

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	4) ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0047	Y	736	HEART		FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM.HILUS) SPLEEN		BLOOD ABSORPTION	+	
					HEMOSIDEROSIS	+	
					EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW		OSTEOGENESIS	+	
			NASAL CAVITY		INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX		CYSTIC DILATATION OF GLAND	+	
			LUNG		CALCIFICATION OF VASCULAR WALL	+	
			LIVER		HYPERPLASTIC NODULE	+	
					FOCAL ATROPHY OF HEPATIC CELLS	+	
					PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
					INFILTRATION OF LEUCOCYTES	+	
					FATTY DEGENERATION OF HEPATIC CELLS	+	
			PANCREAS		ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS		CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
					PIGMENTATION (BILATERAL)	+	
					INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0047 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0047	Y	736	TESTES	(BILATERAL) NODULE (BILATERAL)	+++			
			PROSTATIC GLAND					
			SEMINAL VESICLE	ATROPHY	+++			
			HARDERIAN GLANDS					
			BRAIN					
			SPINAL CORD					
						INFLAMMATION	+	
						ATROPHY	+	
						INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
						PIGMENTATION	+	
						PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M1-0048
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0048	Y	736	LYMPH NODES (PULM. HILUS) SPLEEN			BLOOD ABSORPTION	+	LEYDIG CELL TUMOR: TESTES
						CONGESTION	+	
						HEMOSIDEROSIS	+	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS + FOCAL ATROPHY OF HEPATIC CELLS	+	
						ANGIECTASIA	+	
						SMALL GRANULOMA	+	
						CHOLANGIOFIBROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++	
						PIGMENTATION (BILATERAL)	+	
						INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ENLARGEMENT (BILATERAL)	++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE
4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0048 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0048 Y 736 TESTES

NODULE (BILATERAL)

+++

SEMINAL VESICLE ATROPHY

+++

ATROPHY

+

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
 + , SLIGHT

++ , MODERATE
 +++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE

APPENDIX 11-M1-0049
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	4) ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0049	W 729	HEART			MYOCARDITIS	+	C-CELL ADENOMA: THYROID GLANDS
		THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	NEUROBLASTOMA: ADRENAL GLANDS
		SPLEEN			CONGESTION HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	++ ++ +	PHEOCHROMOCYTOMA: ADRENAL GLANDS ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES
		NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
		LUNG			CALCIFICATION OF VASCULAR WALL	+	
		LIVER	DISCOLORATION	+	SMALL GRANULOMA PROLIFERATION OF BILE DUCT INFILTRATION OF LEUCOCYTES	++ ++ +	
		PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
		KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL) CYST (UNILATERAL)	++ +	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) CYST (UNILATERAL)	++ ++ ++ ++ +	
		TESTES	ENLARGEMENT (UNILATERAL) ATROPHY (UNILATERAL)	+++ +	LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0049 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0049	W	729	TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	++ +	ADENOMA		
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	+++	C-CELL ADENOMA (UNILATERAL)		
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	++	NEUROBLASTOMA (BILATERAL) PHEOCHROMOCYTOMA (UNILATERAL)		
			MAMMARY GLAND			DILATATION OF GLAND	+	
			BRAIN	IMPRESSION	+	PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS
2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0050
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0050	W	706	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	FIBROMA: TONGUE
			SPLEEN			CONGESTION	+	
						HEMOSIDEROSIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			TONGUE	MASS	A	FIBROMA	+	
			SUBLINGUAL GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			LIVER	DISCOLORATION	+	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ + +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+ + +	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0050 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0050	W	706	KIDNEYS					
			TESTES	ENLARGEMENT (BILATERAL)	+++			
				NODULE (BILATERAL)	+++			
			SEMINAL VESICLE					
			BRAIN					
						CALCIFICATION (UNILATERAL)	+	
						LEYDIG CELL TUMOR (BILATERAL)		
						ATROPHY	++	
						PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0051

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0051	Y	736	HEART			MYOCARDITIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG		+	ADENOMATOSIS CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FOCAL ATROPHY OF HEPATIC CELLS ANGIECTASIA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES FATTY DEGENERATION OF HEPATIC CELLS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES	NODULE (UNILATERAL) ENLARGEMENT (UNILATERAL)	+++ +++	LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M1-0051 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 0 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0051 Y 736 TESTES

ATROPHY
(UNILATERAL) +
SOFTENING (UNILATERAL) +

SEMINAL VESICLE ENLARGEMENT

+++

DILATATION OF GLAND

+

BRAIN

PIGMENTATION

+

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M1-0052

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : O PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0052	W	347	SPLEEN			ATROPHY CONGESTION HEMOSIDEROSIS	+	NO SIGNIFICANT LESION.
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
			LIVER	ATROPHY DISCOLORATION	+	FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT	+	
			KIDNEYS		+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0101

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

ANIMAL			GROSS PATHOLOGICAL FINDINGS		HISTOPATHOLOGICAL FINDINGS		PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	
1) FATE	2) DAYS	3) ORGAN	4) FINDINGS	5) GRADE	6) FINDINGS	7) GRADE	8) FINDINGS	9) GRADE
0101	W 712	HEART	NODULE	+	FIBROSIS	+	C-CELL ADENOMA: THYROID GLANDS	+
		THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES	+
		SPLEEN			EXTRAMEDULLARY HEMATOPOIESIS	++	FIBROSARCOMA: SKIN (SUBCUTIS)	++
		BONE MARROW			HEMOSIDEROSIS	+		+
		LUNG			ACTIVATION OF HEMATOPOIESIS	++		++
					SWELLING OF ALVEOLAR EPITHELIUM	+		+
					HEMORRHAGE	+		+
					CALCIFICATION OF VASCULAR WALL	+		+
		LIVER	DISCOLORATION	++	PROLIFERATION OF BILE DUCT WITH FIBROSIS	+		+
					FOCAL ATROPHY OF HEPATIC CELLS	+		+
					HYPERPLASTIC NODULE	+		+
		KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+		+
					PIGMENTATION (BILATERAL)	+		+
					INFILTRATION OF LEUCOCYTES (UNILATERAL)	+		+
		TESTES	ATROPHY (UNILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+		+
			NODULE (BILATERAL)	+++				
		PROSTATIC GLAND			INFLAMMATION	+		+

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+/ SLIGHT
++ / MODERATE
+++ / SEVERE

APPENDIX 11-M2-0101 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0101	W	712	SEMINAL VESICLE			ATROPHY	+	
			THYROID GLANDS			C-CELL ADENOMA (UNILATERAL)		
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+	
			SKIN (SUBCUTIS)	MASS	C	FIBROSARCOMA		
			MAMMARY GLAND			DILATATION OF GLAND	+	
			HARDERIAN GLANDS			DILATATION OF GLAND (UNILATERAL)	+	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M2-0102
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004								
ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0102	Y	733	SPLEEN	ENLARGEMENT	+			
			LUNG					
			LIVER	REDDISH CHANGE	+			CALCIFICATION OF VASCULAR WALL +
			KIDNEYS					
								CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) ++
								PIGMENTATION (BILATERAL) ++
								INFILTRATION OF LEUCOCYTES +
								(UNILATERAL)
			TESTES	ATROPHY (UNILATERAL)	+			
				NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	+			
			SKIN	ABSCESS	++			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0103
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0103	Y	733	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	DISCOLORATION	+			
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ ++ +	
			TESTES	NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0104

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0104	Y	733	SPLEEN	ENLARGEMENT	+			
			LUNG					
			LIVER	DISCOLORATION	+			CALCIFICATION OF VASCULAR WALL +
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) ++
			TESTES	NODULE (BILATERAL)	++			
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	+			
					++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0105 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0105	W	665	KIDNEYS					
			TESTES	ATROPHY (BILATERAL)	+++			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)
			EPIDIDYMIS	ENLARGEMENT (UNILATERAL)	++			ATROPHY (BILATERAL)
			PROSTATIC GLAND	ATROPHY	+++			HYPERPLASIA OF MUCOSAL EPITHELIUM (BILATERAL)
			SEMINAL VESICLE	ATROPHY	+++			EDEMA (BILATERAL)
			PITUITARY GLAND	MASS HEMORRHAGE	A +++			INFLAMMATION
			SKIN (SUBCUTIS)	MASS	A			ATROPHY
			MAMMARY GLAND					ADENOMA
			HARDERIAN GLANDS					FIBROMA
			BRAIN	IMPRESSION	+++			DILATATION OF GLAND
								INFILTRATION OF LEUCOCYTES (UNILATERAL)
								DILATATION OF CEREBRAL VENTRICLE PIGMENTATION

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0106
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0106	Y	733	LUNG					
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CALCIFICATION OF VASCULAR WALL	+	
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN	MASS	B			
			SKIN (SUBCUTIS)	MASS	C			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M2-0107

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0107	Y	733	LUNG					
			LIVER	YELLOWISH CHANGE	+			CALCIFICATION OF VASCULAR WALL +
			KIDNEYS					
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) + PIGMENTATION (BILATERAL) ++ INFILTRATION OF LEUCOCYTES + (BILATERAL)
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	++ +			
			SKIN (SUBCUTIS)	MASS	C			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0108
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0108	Y	733	SPLEEN	ENLARGEMENT	+			
			LIVER	NODULE	+			
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	
			TESTES	ATROPHY (BILATERAL)	+			
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	++ ++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M2-0109 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0109	W	579	THYROID GLANDS			ENLARGEMENT OF FOLLICLE (BILATERAL) +		
			SKIN (SUBCUTIS)	MASS	C	SQUAMOUS CELL CARCINOMA, PRIMARY		

1) FATE : W , KILLED IN EXTREMIS	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M2-0110

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0110	W	721	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	ADENOCARCINOMA: JEJUNUM HEPATOCELLULAR ADENOMA : LIVER
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (MESENT.)	ENLARGEMENT	+++	ANGIECTASIA	++	
			SPLEEN	ENLARGEMENT	++	EXTRAMEDULLARY HEMATOPOIESIS CONGESTION	++ +	
			BONE MARROW			OSTEOGENESIS ACTIVATION OF HEMATOPOIESIS	+ ++	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			JEJUNUM	MASS	C	ADENOCARCINOMA		
			LIVER	MASS ENLARGEMENT DISCOLORATION	A +++ +++	HEPATOCELLULAR ADENOMA FATTY DEGENERATION OF HEPATIC CELLS CHOLANGIOFIBROSIS THROMBOARTERITIS	+ + ++	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0110 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0110	W	721	KIDNEYS					
			TESTES	ENLARGEMENT (UNILATERAL) ATROPHY (UNILATERAL) NODULE (UNILATERAL)	+++ +++ +++			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) LEYDIG CELL TUMOR (BILATERAL)
			SEMINAL VESICLE	ATROPHY	+++			++ +
			ADRENAL GLANDS					++ +
			BRAIN					+

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ / SLIGHT
++ / MODERATE
+++ / SEVERE

APPENDIX 11-M2-0111
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0111	Y	733	SPLEEN	ENLARGEMENT	+			
			LUNG					CALCIFICATION OF VASCULAR WALL +
			LIVER	WHITISH PATCH	+			
			KIDNEYS					CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) + PIGMENTATION (BILATERAL) ++ INFILTRATION OF LEUCOCYTES + (BILATERAL)
			TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN (SUBCUTIS)	MASS	C			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0112
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0112	W	537	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+	MALIGNANT FIBROUS HISTIO- CYTOMA: SKIN (SUBCUTIS)
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			EXTRAMEDULLARY HEMATOPOIESIS HEMOSIDEROSES	+	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	+	
			LUNG			HEMORRHAGE CALCIFICATION OF VASCULAR WALL	+	
			LIVER	DISCOLORATION	++	FATTY DEGENERATION OF HEPATIC CELLS SWELLING OF KUPFFER CELLS	++	
			PANCREAS			HYPERPLASIA OF ISLET-CELLS ATROPHY OF PANCREATIC ACINUS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++	
			TESTES	ATROPHY (UNILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0112 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0112	W	537	TESTES					
				NODULE (UNILATERAL)	++			
			SEMINAL VESICLE			ATROPHY	+	
			THYROID GLANDS			HYPERPLASIA OF C-CELLS (BILATERAL)	+	
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	+	
			SKIN (SUBCUTIS)	MASS	C	MALIGNANT FIBROUS HISTIOCYTOMA		
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0113
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0113	Y	733	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	NODULE	+			
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ + +	
			TESTES	NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+			
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	+++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0114

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0114	Y	733	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	++ +++			
			SEMINAL VESICLE	ATROPHY	+			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0115
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0115	W	711	MULTIPLE ORGANS	YELLOWISH CHANGE	+	MONONUCLEAR CELL LEUKEMIA		PHEOCHROMOCYTOMA: ADRENAL GLANDS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	GANGLIONEUROMA: ADRENAL GLANDS
			SPLEEN	ENLARGEMENT	+++	CONGESTION HEMORRHAGE	+++ +++	LEYDIG CELL TUMOR: TESTES PAPILLARY ADENOMA : MAMMARY GLAND
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	+	MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	ADENOMA: KIDNEYS
			LUNG	ENLARGEMENT DISCOLORATION	+	CALCIFICATION OF VASCULAR WALL	+	
			STOMACH			EDEMA	++	
			LIVER	ENLARGEMENT	+++	PROLIFERATION OF BILE DUCT HYPERPLASTIC NODULE	+++ +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) ADENOMA (UNILATERAL)	+++ +++ ++	
			TESTES	ATROPHY (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0115 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0115	W	711	TESTES					
				NODULE (BILATERAL) +				
			PROSTATIC GLAND					INFLAMMATION +
			SEMINAL VESICLE					ATROPHY ++
			ADRENAL GLANDS					PHEOCHROMOCYTOMA (UNILATERAL) GANGLIONEUROMA (UNILATERAL) VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL) +
			MAMMARY GLAND					DILATATION OF GLAND PAPILLARY ADENOMA +

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0116

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0116	Y	734	LUNG			ADENOMATOSIS CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL) NODULE (UNILATERAL)	+++ +++ +++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0117
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0117	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	WHITISH PATCH	+			
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+			
			SEMINAL VESICLE	ATROPHY	+			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0118
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0118	W	519	THORACIC CAVITY	HEMORRHAGE	+++			HEMANGIOSARCOMA: SPLEEN LEYDIG CELL TUMOR: TESTES
			HEART			FIBROSIS	+	
			LYMPH NODES (PULM. HILUS)			BLOOD ABSORPTION	+++	
			SPLEEN	MASS	C	HEMANGIOSARCOMA		
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	++	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	CONGESTION	++	CONGESTION EXTRAMEDULLARY HEMATOPOIESIS CALCIFICATION OF VASCULAR WALL HEMORRHAGE	++ + + +	
			COLON	NODULE	+			
			LIVER	DISCOLORATION	+	ANEMIA FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT SMALL GRANULOMA	++ + + +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+ + ++	
			KIDNEYS	BLACKISH CHANGE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0118 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0118	W	519	KIDNEYS					
			TESTES	ATROPHY (UNILATERAL)	+			INFILTRATION OF LEUCOCYTES (BILATERAL) +
			ADRENAL GLANDS					LEYDIG CELL TUMOR (BILATERAL)
			HARDERIAN GLANDS					VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL) +
								INFILTRATION OF LEUCOCYTES (UNILATERAL) +

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ / SLIGHT
 ++ / MODERATE
 +++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
 B / MEDIAL AND/OR SPORADIC
 C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0119

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0119	W	697	MULTIPLE ORGANS					
			THYMUS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			LYMPH NODES (SUBMAXI.)			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	: MULTIPLE ORGANS C-CELL ADENOMA: THYROID GLANDS
			LYMPH NODES (PULM. HILUS)			MIGRATION OF FOAMY CELLS	+	ADENOMA: PITUITARY GLAND
			SPLEEN			BLOOD ABSORPTION	+	LEYDIG CELL TUMOR: TESTES
			BONE MARROW			CONGESTION	+++	
			LUNG			HEMOSIDEROSIS	+	
			STOMACH			ACTIVATION OF HEMATOPOIESIS	+	
			LIVER			CONGESTION	+	
			PANCREAS			ULCER	+	
			KIDNEYS			EDEMA	+	
						ROUGHNESS OF SURFACE	+	
						FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	++	
						FOCAL ATROPHY OF HEPATIC CELLS	+	
						ATROPHY OF PANCREATIC ACINUS	++	
						ROUGHNESS OF SURFACE (BILATERAL)	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+++	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0120

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0120	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL OSSEOUS TISSUE	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+ + +++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT + , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

APPENDIX 11-M2-0121

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0121	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	+++ +++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0122
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0122	Y	734	SPLEEN	ENLARGEMENT	+			
			LUNG	NODULE	+			
			KIDNEYS			CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN (SUBCUTIS)	MASS	C			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0123

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS		
0123	W	715	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	C-CELL ADENOMA: THYROID GLANDS		
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS MIGRATION OF HEMOSIDERIN-LADEN CELLS	+	LEIOMYOSARCOMA: JEJUNUM ADENOMA: PITUITARY GLAND		
			SPLEEN			CONGESTION HEMOSIDEROSIS	+			
			LUNG			CALCIFICATION OF VASCULAR WALL	+			
			JEJUNUM	MASS	A	LEIOMYOSARCOMA				
			LIVER	YELLOWISH CHANGE	++	FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	+			
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++			
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ +			
			TESTES	ATROPHY	++	HYPERPLASIA OF LEYDIG CELLS	+			
			1) FATE : W , KILLED IN EXTREMIS				3) GRADE OF MASS :			
			2) GRADE : NEGATIVE NOT PRESENTED				A , SMALL AND/OR SINGULAR			
			+ , SLIGHT				B , MEDIAL AND/OR SPORADIC			
				++ , MODERATE				C , LARGE AND/OR MULTIPLE		
				+++ , SEVERE						
				4) DAYS : AFTER START OF TREATMENT						

APPENDIX 11-M2-0123 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0123	W	715	TESTES	(BILATERAL)		(BILATERAL)		
			PROSTATIC GLAND			INFLAMMATION	+	
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ ++	ADENOMA		
			THYROID GLANDS			C-CELL ADENOMA (UNILATERAL)		
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+	
			MAMMARY GLAND			DILATATION OF GLAND	+	
			BRAIN	IMPRESSION	+	DILATATION OF CEREBRAL VENTRICLE	+	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+, SLIGHT
++, MODERATE
+++, SEVERE

APPENDIX 11-M2-0124
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0124	Y	734	LUNG					
			LIVER	NODULE	+			CALCIFICATION OF VASCULAR WALL +
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	++			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) +++
			TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+++ +++ +++			++ + ++
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN	NODULE	+			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0125

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0125	W	644	HEART			FIBROSIS	+	MESENCHYMOA: SKIN
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	PHEOCHROMOCYTOMA: ADRENAL GLANDS
			SPLEEN			EXTRAMEDULLARY HEMATOPOIESIS HEMOSIDEROSIS	+	ADENOMA: PITUITARY GLAND
							++	LEYDIG CELL TUMOR: TESTES
			BONE MARROW			OSTEOGENESIS	+	
			LUNG			OSSEOUS TISSUE CALCIFICATION OF VASCULAR WALL	+	
			RECTUM	CONSTIPATION	++		+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS HYPERPLASIA OF ISLET-CELLS	+	
			KIDNEYS	DISCOLORATION (BILATERAL) HYDRONEPHROSIS (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) PYELITIS (BILATERAL)	++ +	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0125 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0125	W	644	KIDNEYS					
			URINARY BLADDER	EXPANSION THICKENING	+			DILATATION OF URINARY TUBULES (BILATERAL) +
			TESTES		+			INFLAMMATION +++
			PROSTATIC GLAND					LEYDIG CELL TUMOR (UNILATERAL)
			SEMINAL VESICLE					INFLAMMATION +++
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	++			INFLAMMATION +++
			ADRENAL GLANDS		++			ADENOMA
			MUSCLE (Q. FEMORIS)					PHEOCHROMOCYTOMA (UNILATERAL)
			SKIN (SUBCUTIS)	MASS	A			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL) +
			MAMMARY GLAND					ATROPHY ++
			SCIATIC NERVE					HYALINE DEGENERATION ++
								MESENCHYMOMA
								DILATATION OF GLAND +
								DEMYELINIZATION ++

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0126

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	4) ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0126	W	636	HEART		FIBROSIS	+	MALIGNANT FIBROUS HISTIO- CYTOMA: SKIN (SUBCUTIS)
			THYMUS		HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (SUBMAXI.)	+			
			LYMPH NODES (MESENT.)				
			SPLEEN				
			BONE MARROW		BLOOD ABSORPTION	+	
			NASAL CAVITY		EXTRAMEDULLARY HEMATOPOIESIS	++	
			LUNG		HEMOSIDEROSIS	+	
					ACTIVATION OF HEMATOPOIESIS	+	
					INFILTRATION OF LEUCOCYTES	+	
					MALIGNANT FIBROUS HISTIOCYTOMA, METASTASIS		
			STOMACH				
				+			
			SUBMAXILLARY GLANDS		REGENERATIVE CHANGE (UNILATERAL)	+	
			SUBLINGUAL GLANDS		REGENERATIVE CHANGE (UNILATERAL)	+	
			PAROTID GLANDS		MALIGNANT FIBROUS HISTIOCYTOMA (BILATERAL), METASTASIS		
			LIVER				
				+	MALIGNANT FIBROUS HISTIOCYTOMA, METASTASIS		
			YELLOWISH CHANGE				

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0126 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004							
ANIMAL NUMBER	1) FATE DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0126	W	636	LIVER				
			PANCREAS				FOCAL NECROSIS ++ FOCAL ATROPHY OF HEPATIC CELLS +++ FATTY DEGENERATION OF HEPATIC CELLS +++ MIGRATION OF HEMOSIDERIN-LADEN CELLS ++
			TESTES				ATROPHY OF PANCREATIC ACINUS + INFILTRATION OF LEUCOCYTES +
			ATROPHY (UNILATERAL) NODULE (BILATERAL)	+			LEYDIG CELL TUMOR (BILATERAL)
				+++			
			SEMINAL VESICLE				
			ATROPHY	+			
			PITUITARY GLAND				
							ATROPHY +
							MIGRATION OF HEMOSIDERIN-LADEN CELLS +
			THYROID GLANDS				
			SKIN (SUBCUTIS)				ENLARGEMENT OF FOLLICLE (BILATERAL) +
			MASS	B			MALIGNANT FIBROUS HISTIOCYTOMA, PRIMARY
			HARDERIAN GLANDS				HYPERSECRETION (BILATERAL) +
			BRAIN				PIGMENTATION +

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0127

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0127	Y	734	LUNG	NODULE	+	CALCIFICATION OF VASCULAR WALL PAPILLARY ADENOMA	+	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES	NODULE (BILATERAL)	+++			
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ ++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0128

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0128	Y	734	SPLEEN	ROUGHNESS OF SURFACE	+			

LUNG

CALCIFICATION OF VASCULAR WALL
PAPILLARY ADENOMA

+

KIDNEYS

CHRONIC PROGRESSIVE
GLOMERULONEPHROPATHY (BILATERAL)
PIGMENTATION (BILATERAL)
INFILTRATION OF LEUCOCYTES
(BILATERAL)

++

+

+

TESTES

ATROPHY
(UNILATERAL)
ENLARGEMENT
(UNILATERAL)
NODULE (BILATERAL)

+

+++

+++

PROSTATIC GLAND

ATROPHY

+++

SEMINAL VESICLE

ATROPHY

+++

SKIN (SUBCUTIS)

MASS

B

EYE BALLS

GRAYISH CHANGE
(UNILATERAL)

+

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M2-0129

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0129	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	NODULE (BILATERAL)	++			

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M2-0131

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004					PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS		
ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE
0131	Y	735	LUNG			CALCIFICATION OF VASCULAR WALL	+
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ + +
			TESTES	SOFTENING (BILATERAL)	+++		
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ ++		
			SKIN (SUBCUTIS)	NODULE	++		
			BRAIN	IMPRESSION	+++		

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0132

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0132	X	488	HEART			FIBROSIS	++	ADENOMA: PITUITARY GLAND
			SPLEEN			HEMOSIDEROSIS	+	
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	++ ++	ADENOMA		
			BRAIN	IMPRESSION	++			

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0133

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0133	W	613	MULTIPLE ORGANS					
			HEART			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			THYMUS	ENLARGEMENT	+	FIBROSIS	+	: MULTIPLE ORGANS
			LYMPH NODES (GENERAL)	ENLARGEMENT	+			LEYDIG CELL TUMOR: TESTES
			SPLEEN	ENLARGEMENT	+++			ISLET-CELL ADENOMA
			LUNG	NODULE	++			: PANCREAS
			STOMACH	THICKENING HEMORRHAGE	+++ +	NECROSIS CALCIFICATION OF VASCULAR WALL	+++ +	
			LIVER	ENLARGEMENT	+++	ULCER EDEMA HYPERKERATOSIS OF FORESTOMACH	++ ++ +	
			PANCREAS	NODULE	++	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	++ ++	
			KIDNEYS			ISLET-CELL ADENOMA		
			TESTES	NODULE (BILATERAL)	++	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			ADRENAL GLANDS			LEYDIG CELL TUMOR (BILATERAL)	+	
						VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0133 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0133	W	613	BRAIN			HEMORRHAGE LEUKEMIC EMBOLISM	+ ++	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M2-0134

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0134	Y	735	LUNG					
			KIDNEYS					
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES	NODULE (BILATERAL)	+++			
			SKIN	MASS	A			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0135

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0135	W	666	HEART			FIBROSIS	+	RHABDOMYOSARCOMA
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	: SKN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM.-HILUS) SPLEEN			BLOOD ABSORPTION	+	
						EXTRAMEDULLARY HEMATOPOIESIS HEMOSIDEROSIS	++ +	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS OSTEOGENESIS	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT	++ ++	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	++ ++ +	
			TESTES	ATROPHY (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

+ , SLIGHT

++ , MODERATE

+++ , SEVERE

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0135 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0135	W	666	ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	++	
			SKIN (SUBCUTIS) MASS		C	RHABDOMYOSARCOMA		
			HARDERIAN GLANDS			HYPERSECRETION (BILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
+ , SLIGHT
++ , MODERATE
+++ , SEVERE
4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0136
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0136	X	438	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			SPLEEN			HEMOSIDEROSIS	++	
			LUNG			CONGESTIVE EDEMA	+++	
			LIVER			CALCIFICATION OF VASCULAR WALL	++	
						FATTY DEGENERATION OF HEPATIC CELLS	++	
						PROLIFERATION OF BILE DUCT	++	
						CONGESTION	+++	
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ +++	ADENOMA		
			ADRENAL GLANDS			HEMORRHAGE (UNILATERAL)	+++	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0137

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0137	Y	735	LUNG					
			KIDNEYS					
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++	
						PIGMENTATION (BILATERAL)	+	
						INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
						CYST (UNILATERAL)	+	
			TESTES		+++			
			SEMINAL VESICLE		+++			
				NODULE (BILATERAL)				
				ATROPHY				

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0138

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0138	Y	735	LUNG					
			KIDNEYS					
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ ++ +	
			TESTES	ENLARGEMENT (UNILATERAL) ATROPHY (UNILATERAL) NODULE (BILATERAL)	+++ + +++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE . 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0139
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0139	W	396	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			HEART			FIBROSIS HEMORRHAGE MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ + +	MULTIPLE ORGANS ADENOMA: PITUITARY GLAND
			THYMUS			ATROPHY HEMORRHAGE	+++ +++	
			LYMPH NODES (PULM. HILUS) SPLEEN	ENLARGEMENT ENLARGEMENT ROUGHNESS OF SURFACE	++ +++ +			
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	REDDISH CHANGE	+	CALCIFICATION OF VASCULAR WALL	+	
			RECTUM	HEMORRHAGE	+			
			LIVER	ENLARGEMENT ROUGHNESS OF SURFACE	++ ++	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT	+++ ++	
			KIDNEYS	WHITISH PATCH (BILATERAL)	+	PIGMENTATION (BILATERAL) VACUOLAR DEGENERATION (BILATERAL)	++ ++	
			TESTES	SOFTENING (BILATERAL)	+	HYPERPLASIA OF LEYDIG CELLS (BILATERAL)	+	
			SEMINAL VESICLE	ATROPHY	++			

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0139 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0139	W	396	PITUITARY GLAND	NODULE	+	ADENOMA		
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	+++	
			EYE BALLS			HEMORRHAGE (UNILATERAL)	+	
			BRAIN	HEMORRHAGE	++	LEUKEMIC EMBOLISM	+++	

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

1) FATE : Y / KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED	3) GRADE OF MASS :
	+ / SLIGHT	A / SMALL AND/OR SINGULAR
	++ / MODERATE	B / MEDIAL AND/OR SPORADIC
4) DAYS : AFTER START OF TREATMENT	+++ / SEVERE	C / LARGE AND/OR MULTIPLE

APPENDIX 11-M2-0141

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0141	Y	735	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ ++ +	

TESTES

ENLARGEMENT
(BILATERAL)
NODULE (BILATERAL)

++

+++

SEMINAL VESICLE

ATROPHY

+++

ADRENAL GLANDS

ENLARGEMENT
(UNILATERAL)

++

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+/ SLIGHT
++ / MODERATE
+++ / SEVERE

APPENDIX 11-M2-0142
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0142	Y	735	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ ++ +	
			TESTES	SOFTENING (UNILATERAL) + NODULE (UNILATERAL) +++	+++			
			SEMINAL VESICLE	ATROPHY	++			
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ ++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0143
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004								
ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0143	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN (SUBCUTIS)	MASS	C			

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0144
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0144	Y	736	SPLEEN	ENLARGEMENT	++			
			LUNG					
			KIDNEYS					
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++	
						PIGMENTATION (BILATERAL)	+	
						INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	NODULE (BILATERAL) ENLARGEMENT (BILATERAL)	+++ ++			
			SEMINAL VESICLE	ATROPHY	++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0145
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0145	Y	736	LUNG					
			KIDNEYS					
			TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+ . +++ +++			CALCIFICATION OF VASCULAR WALL + CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) + PIGMENTATION (BILATERAL) + INFILTRATION OF LEUCOCYTES (BILATERAL) +
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	++ ++			
			SKIN	MASS	B			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0146
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0146	X	644	HEART	GRAYISH CHANGE	+	FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS					
			LYMPH NODES (PULM. HILUS)	ENLARGEMENT	++			
			SPLEEN					
			LIVER					
						HEMOSIDEROSIS	+	
						FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
			KIDNEYS	WHITISH PATCH (BILATERAL)	+			
						PIGMENTATION (BILATERAL) INTERSTITIAL NEPHRITIS (UNILATERAL) PYELITIS (UNILATERAL)	+	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND	ATROPHY	+++	INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			HARDERIAN GLANDS			HYPERSECRETION (BILATERAL)	+	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0147

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0147	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+++	
						PIGMENTATION (BILATERAL)	+	
						INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES		+++			
			SEMINAL VESICLE	ATROPHY	+			
			THYROID GLANDS	ENLARGEMENT (BILATERAL)	++			

1) FATE : Y , KILLED ON SCHEDULE . 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0148
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004								
ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0148	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ ++ ++	
			TESTES	NODULE (BILATERAL) ENLARGEMENT (BILATERAL)	+++ ++			
			SEMINAL VESICLE	ATROPHY	+++			
			EYE BALLS	GRAYISH CHANGE (UNILATERAL)	+			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M2-0149

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0149	Y	736	SPLEEN	ENLARGEMENT	++			
			LUNG	WHITISH PATCH	++			CALCIFICATION OF VASCULAR WALL PAPILLARY ADENOMA
			KIDNEYS					CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	++ +++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0150 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0150	W	690	PANCREAS			CELLS		
			KIDNEYS	BLACKISH CHANGE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ATROPHY (BILATERAL) NODULE (BILATERAL)	+++ ++	LEYDIG CELL TUMOR (BILATERAL)		
			SEMINAL VESICLE	ATROPHY	+			
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	++ ++	ADENOMA		
			THYROID GLANDS	GRAYISH CHANGE (BILATERAL)	+			
			ADRENAL GLANDS	ATROPHY (UNILATERAL)	+	HYPERPLASIA OF CORTIC CELLS (BILATERAL) VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	+	
			SKIN	MASS NODULE	B +++	KERATOACANTHOMA		
			MAMMARY GLAND					
			BRAIN	IMPRESSION	+	DILATATION OF GLAND	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M2-0151

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0151	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	

TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+	+	+++	+++	++
SEMINAL VESICLE	ATROPHY	+++				
SKIN	NODULE	++				

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M2-0152

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 10 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0152	Y	736	LUNG					
			KIDNEYS					
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+			
			SEMINAL VESICLE	ATROPHY	+++			
			EYE BALLS	GRAYISH CHANGE (UNILATERAL)	+			
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0201

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0201	Y	733	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ATROPHY (BILATERAL)	+++			
			EPIDIDYMIS	ATROPHY (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN	MASS SCAB	A ++			
			SKIN (SUBCUTIS)	MASS	C			
			EYE BALLS	HEMORRHAGE (UNILATERAL)	+++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0202

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0202	Y	733	SPLEEN	ENLARGEMENT	+			
			LUNG					
			KIDNEYS					
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE
 2) GRADE : NEGATIVE NOT PRESENTED
 3) GRADE OF MASS :
 A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE
 4) DAYS : AFTER START OF TREATMENT
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

APPENDIX 11-M3-0203
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0203	X	546	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES
			THORACIC CAVITY	HEMORRHAGE	+			
			ABDOMINAL CAVITY	HEMORRHAGE	++			
			DIAPHRAGM			HEMORRHAGE	+++	
			HEART			FIBROSIS	+	
			THYMUS			HEMORRHAGE	+	
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	
			NASAL CAVITY	ENLARGEMENT	++			
			LARYNGOPHARYNX			INFILTRATION OF LEUCOCYTES	++	
			LUNG	HEMORRHAGE	++	HEMORRHAGE	+	
			STOMACH			DILATATION OF GASTRIC FAVEOLAE	+	
			LIVER	ADHESION ENLARGEMENT	+	PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
			KIDNEYS			PIGMENTATION (BILATERAL)	+	
			TESTES	NODULE (UNILATERAL)	+	HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)	+	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0203 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0203	X	546	TESTES					
			ADRENAL GLANDS	ENLARGEMENT (BILATERAL)	++			LEYDIG CELL TUMOR (UNILATERAL)
			HARDERIAN GLANDS					
			BRAIN	HEMORRHAGE	++			HYPERSECRETION (BILATERAL) + PIGMENTATION + LEUKEMIC EMBOLISM +++ PIGMENTATION +
			SPINAL CORD					

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0204

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0204	W	631	PERITONEUM	NODULE	++	MESOTHELIOMA		FIBROADENOMA: MAMMARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	++	MESOTHELIOMA: PERITONEUM LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (POPLITEAL) SPLEEN	ENLARGEMENT	++			
			BONE MARROW			EXTRAMEDULLARY HEMATOPOIESIS	++	
			NASAL CAVITY			ACTIVATION OF HEMATOPOIESIS	++	
			LUNG			INFILTRATION OF LEUCOCYTES	++	
			LIVER	ENLARGEMENT WHITISH PATCH	+	CALCIFICATION OF VASCULAR WALL	+	
					+	FATTY DEGENERATION OF HEPATIC CELLS	+	
					+	SMALL GRANULOMA	+	
						FOCAL NECROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
						CHOLANGIOFIBROSIS	+	
						HYPERPLASTIC NODULE	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL) NODULE (UNILATERAL)	+	LEYDIG CELL TUMOR (UNILATERAL) ATROPHY (UNILATERAL)	++	
			EPIDIDYMIS			ATROPHY (UNILATERAL)	++	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ / SLIGHT
++ / MODERATE
+++ / SEVERE

APPENDIX 11-M3-0204 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0204	W	631	PROSTATIC GLAND			ATROPHY	+	
			SEMINAL VESICLE	ATROPHY	+	ATROPHY	++	
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+	
			MAMMARY GLAND	MASS	C	FIBROADENOMA		
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			BRAIN			PIGMENTATION	+	
			SPINAL CORD			PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS
2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX :	100	PPM	MALE
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STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0205	Y	733	SPLEEN	ENLARGEMENT	+++			
			LUNG					
			LIVER	ENLARGEMENT	+++			CALCIFICATION OF VASCULAR WALL +
			KIDNEYS					
								CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) +
								PIGMENTATION (BILATERAL) +
			TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			

11) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

44) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0206

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0206	Y	733	KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES	NODULE (BILATERAL)	++			
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	++ +++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0207

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0207	Y	733	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ATROPHY (BILATERAL)	+			
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	++ +++			
			BRAIN	IMPRESSION	+			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT + , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

APPENDIX 11-M3-0208

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE 4) DAYS	ORGAN	GROSS PATHOLOGICAL 'FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0208	Y	733 LUNG			CALCIFICATION OF VASCULAR WALL	+	
		KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
		TESTES	NODULE (BILATERAL)	+++			
		SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0209

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0209	Y	733	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ +	
			TESTES		+++	NODULE (BILATERAL)		
			SEMINAL VESICLE	ATROPHY	+			
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	++ ++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT + , SLIGHT A , SMALL AND/OR SINGULAR

 ++ , MODERATE B , MEDIAL AND/OR SPORADIC

 +++ , SEVERE C , LARGE AND/OR MULTIPLE

APPENDIX 11-M3-0210

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0210	Y	733	LUNG	NODULE	+	CALCIFICATION OF VASCULAR WALL	+	
			LIVER	DISCOLORATION	+			
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES	NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			

APPENDIX 11-M3-0211

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0211	Y	733	LUNG		CALCIFICATION OF VASCULAR WALL	+	
			LIVER		WHITISH PATCH	+	
			KIDNEYS		CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	
			TESTES		NODULE (BILATERAL)	++	
			SEMINAL VESICLE		ATROPHY	+++	

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED	3) GRADE OF MASS :
	+	A , SMALL AND/OR SINGULAR
	++	B , MEDIAL AND/OR SPORADIC
	+++	C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0212

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0212	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS					
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+			
			SEMINAL VESICLE	ATROPHY	+++			
			PITUITARY GLAND	ENLARGEMENT	+			
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	+			
			SKIN (SUBCUTIS)	MASS	C			
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0213

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0213	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL	+	
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			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
--	--	--	---------	--	--	--	---	--

			TESTES	ATROPHY (BILATERAL) NODULE (BILATERAL)	+			
--	--	--	--------	--	---	--	--	--

			PITUITARY GLAND	HEMORRHAGE	+			
--	--	--	-----------------	------------	---	--	--	--

			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	+			
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			SKIN (SUBCUTIS)	NODULE	++			
--	--	--	-----------------	--------	----	--	--	--

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M3-0215

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0215	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER		+			
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
			TESTES		+++			
				ATROPHY (UNILATERAL) NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
 B / MEDIAL AND/OR SPORADIC
 C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ / SLIGHT
 ++ / MODERATE
 +++ / SEVERE

APPENDIX 11-M3-0216
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0216	Y	734	SPLEEN	ENLARGEMENT	++			
			LUNG					CALCIFICATION OF VASCULAR WALL +
			PANCREAS	NODULE	++			
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) + PIGMENTATION (BILATERAL) + INFILTRATION OF LEUCOCYTES + (BILATERAL)
			TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+++ + +++			
			SKIN	MASS	A			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0217

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0217	Y	734	SPLEEN	ENLARGEMENT	+++			
			LUNG					CALCIFICATION OF VASCULAR WALL +
			LIVER	DISCOLORATION ROUGHNESS OF SURFACE	+ +			
			KIDNEYS					CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL) ++ + +
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+ +++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M3-0218
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0218	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL) NODULE (UNILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	+			
			SKIN (SUBCUTIS)	MASS	A			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0219

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0219	Y	734	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN (SUBCUTIS)	MASS	B			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0220
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0220	X	543	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			ABDOMINAL CAVITY	HEMORRHAGE	++			: MULTIPLE ORGANS
			HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS	ENLARGEMENT	+			
			LYMPH NODES (HEPATIC)	ENLARGEMENT	+			
			LYMPH NODES (MESENT.)	ENLARGEMENT	++			
			SPLEEN	ENLARGEMENT	+++			
			NASAL CAVITY					
			LUNG	EMPHYSEMA	+	INFILTRATION OF LEUCOCYTES	++	
			LIVER	ENLARGEMENT	+	CONGESTION	+	
			TESTES	NODULE (BILATERAL)	+++	HYPERPLASIA OF LEYDIG CELLS (UNILATERAL) LEYDIG CELL TUMOR (UNILATERAL)	+	
			BRAIN	HEMORRHAGE	++	LEUKEMIC EMBOLISM	++	
			SPINAL CORD			LEUKEMIC EMBOLISM	++	

1) FATE : X / FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0221
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0221	X	641	PERITONEUM	MASS	C	FIBROSARCOMA		FIBROSARCOMA: PERITONEUM
			HEART			FIBROSIS	+	
			SPLEEN	ENLARGEMENT	+++			
			BONE MARROW					
			NASAL CAVITY			ACTIVATION OF HEMATOPOIESIS	++	
			LUNG			INFILTRATION OF LEUCOCYTES	+	
			LIVER	CONGESTION	+++	CONGESTION	++	
			KIDNEYS			PROLIFERATION OF BILE DUCT WITH FIBROSIS	++	
			TESTES	ATROPHY (BILATERAL)	+	PIGMENTATION (BILATERAL)	+	
			BRAIN			HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)	++	
			SPINAL CORD			PIGMENTATION	+	
						PIGMENTATION	+	

1) FATE : X / FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :
A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0222

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0222	Y	734	LUNG	NODULE	++	CALCIFICATION OF VASCULAR WALL PAPILLARY ADENOMA	+	
			LIVER	NODULE	+			
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ ++ ++	
			TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+			
			SEMINAL VESICLE	ATROPHY	+			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0223
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0223	W	463	HEART			FIBROSIS	+	MESENCHYMOMA: KIDNEYS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN	ENLARGEMENT	+++	EXTRAMEDULLARY HEMATOPOIESIS	+++	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	++	
			LUNG			CALCIFICATION OF VASCULAR WALL HISTIOCYTOSIS	+	
			STOMACH			DILATATION OF GASTRIC FAVEOLAE	+	
			LIVER	DISCOLORATION	+++	EXTRAMEDULLARY HEMATOPOIESIS	+	
			KIDNEYS	BLACKISH CHANGE (UNILATERAL) MASS (UNILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (UNILATERAL) PIGMENTATION (UNILATERAL) MESENCHYMOMA (UNILATERAL)	+	
			URINARY BLADDER	HEMORRHAGE	++			
			TESTES	ATROPHY (BILATERAL)	+			
			SEMINAL VESICLE			ATROPHY	+	
			PITUITARY GLAND			CYST	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT

++ , MODERATE

+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0223 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0223 W 463 PITUITARY GLAND

HYPERPLASIA OF CHROMOPHOBE CELLS +
MIGRATION OF HEMOSIDERIN-LADEN +
CELLS

ADRENAL GLANDS ENLARGEMENT
(UNILATERAL) ++

VACUOLAR DEGENERATION OF CORTICAL
CELLS (BILATERAL) +

BRAIN

PIGMENTATION +

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M3-0224

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0224	Y	735	LUNG					
			KIDNEYS					
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ ++ +	
			TESTES	NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0225
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0225	Y	735	LUNG					
			KIDNEYS					
			TESTES	SOFTENING (BILATERAL) NODULE (BILATERAL)	+			
			PROSTATIC GLAND	NODULE	+++			
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ ++			
			BRAIN	IMPRESSION	+			
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	

1) FATE : Y , KILLED ON SCHEDULE
 2) GRADE : NEGATIVE NOT PRESENTED
 3) GRADE OF MASS :
 A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE
 4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0226

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0226	Y	735	SPLEEN	ENLARGEMENT	++			
			LUNG					CALCIFICATION OF VASCULAR WALL ADENOMATOSIS
			KIDNEYS					CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)
			TESTES	NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

4) DAYS : AFTER START OF TREATMENT A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE

LEVEL AND SEX :	100	PPM	MALE
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STUDY NO. 83004

TESTES	ENLARGEMENT (UNILATERAL)	+++
	NOOULE (BILATERAL)	+++
SEMINAL VESICLE	ATROPHY	+++
SKIN (SUBCUTIS)	NOOULE	++

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M3-0228
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0228	Y	735	LYMPH NODES (PULM.HILUS) LUNG	REDDISH CHANGE	+			
			KIDNEYS			CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++	
						PIGMENTATION (BILATERAL)	++	
						INFILTRATION OF LEUCOCYTES (BILATERAL)	++	
			TESTES	ENLARGEMENT (BILATERAL)	+++			
				NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	+++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M3-0229

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0229	Y	735	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			SKIN	MASS	A			

1) FATE : Y , KILLED ON SCHEDULE				2) GRADE : NEGATIVE NOT PRESENTED		3) GRADE OF MASS :		
4) DAYS : AFTER START OF TREATMENT				+ , SLIGHT		A , SMALL AND/OR SINGULAR		
				++ , MODERATE		B , MEDIAL AND/OR SPORADIC		
				+++ , SEVERE		C , LARGE AND/OR MULTIPLE		

APPENDIX 11-M3-0230

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0230	Y	735	LUNG	WHITISH PATCH	+	CALCIFICATION OF VASCULAR WALL ADENOMATOSIS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	++ +	
			TESTES	NODULE (BILATERAL)	++			
			PROSTATIC GLAND	NODULE	+++			
			BULBOURETHRAL GLAND	ENLARGEMENT	+			
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	++ +++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0231
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0231	Y	735	LUNG	NODULE	++	CALCIFICATION OF VASCULAR WALL PAPILLARY ADENOMA	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	++ +++			
			SKIN (SUBCUTIS)	MASS	B			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0232	Y	735	LUNG			CALCIFICATION OF VASCULAR WALL OSSEOUS TISSUE	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	

TESTES	SOFTENING (BILATERAL)	+++
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PROSTATIC GLAND	NODULE	+++
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11) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT

3) GRADE OF MASS : -----

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0233

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0233	Y	735	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ + ++	
			TESTES	ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+++ +++			
			SEMINAL VESICLE	ATROPHY	+++			
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	+++			
			HARDERIAN GLANDS	REDDISH CHANGE (UNILATERAL)	+			

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0234

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0234	Y	735	LUNG					
			KIDNEYS					
						CALCIFICATION OF VASCULAR WALL ADENOMATOSIS	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES	NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

++ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M3-0235

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0235	Y	735	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			TESTES	SOFTENING (BILATERAL) NODULE (BILATERAL)	+ ++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0236	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ ++ ++	
			URINARY BLADDER	NODULE	+			
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	++ ++			
			PITUITARY GLAND	ENLARGEMENT	+++			

11) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

44) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0237

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0237	Y	736	SPLEEN	ENLARGEMENT	++			
			LUNG	REDDISH CHANGE ENLARGEMENT	+			CALCIFICATION OF VASCULAR WALL ++
			LIVER	ROUGHNESS OF SURFACE	+			
			KIDNEYS					CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) +++ +++ +
			TESTES	ATROPHY (BILATERAL) NODULE (UNILATERAL)	+			
			SEMINAL VESICLE	ATROPHY	++			
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	++ ++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0238
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0238	Y	736	LUNG					
			KIDNEYS					
			TESTES	NODULE (BILATERAL)	+++			CALCIFICATION OF VASCULAR WALL +
			SEMINAL VESICLE	ATROPHY	+++			CHRONIC PROGRESSIVE +
			SKIN	NODULE	++			GLOMERULONEPHROPATHY (BILATERAL) + INFILTRATION OF LEUCOCYTES (UNILATERAL)

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0239

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0239	Y	736	LUNG					
			KIDNEYS					
			TESTES	ENLARGEMENT (BILATERAL)	+++			
				NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++			
			PITUITARY GLAND	HEMORRHAGE	+			
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0240
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0240	Y	736	LUNG	NODULE	+	CALCIFICATION OF VASCULAR WALL ADENOMATOSIS	+	
			KIDNEYS	CYST (UNILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) FIBROSIS (UNILATERAL)	+++ +++ +++ +++ ++	
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	++ ++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M3-0241
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0241	Y	736	LUNG					
			KIDNEYS					
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ ++ +	
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	++ +++			
			SEMINAL VESICLE	ATROPHY	++			

1) FATE : Y , KILLED ON SCHEDULE
 2) GRADE : NEGATIVE NOT PRESENTED
 3) GRADE OF MASS :
 A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE
 4) DAYS : AFTER START OF TREATMENT
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

APPENDIX 11-M3-0242
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0242	X	473	PERITONEUM	MASS	B	LIPOSARCOMA HEMORRHAGE		LIPOSARCOMA: PERITONEUM
			HEART			FIBROSIS	+++	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			HYPERSECRETION	+	
			LUNG			CALCIFICATION OF VASCULAR WALL SWELLING OF ALVEOLAR EPITHELIUM	++	
			LIVER	DISCOLORATION	+++	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT	++	
			PANCREAS			REGENERATIVE CHANGE	++	
			KIDNEYS			PIGMENTATION (BILATERAL)	+	
			TESTES	SOFTENING (BILATERAL)	+			
			PROSTATIC GLAND			INFILTRATION OF LEUCOCYTES	+	
			BRAIN			PIGMENTATION	+	
			SPINAL CORD			PIGMENTATION	+	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M3-0243
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0243	Y	736	LUNG					
			KIDNEYS					
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	++			
			BULBOURETHRAL GLAND	ENLARGEMENT	++			
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	++ ++			
			ADRENAL GLANDS	ENLARGEMENT (BILATERAL)	++			
			MAMMARY GLAND	MASS	C			
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	++ ++ +	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0244
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) W	694	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0244				MULTIPLE ORGANS					
				THYMUS			MONONUCLEAR CELL LEUKEMIA		C-CELL ADENOMA: THYROID GLANDS
				SPLEEN	ENLARGEMENT	+++	HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS
				BONE MARROW			ACTIVATION OF HEMATOPOIESIS	++	
				NASAL CAVITY			INFLAMMATION	++	
				LUNG	NODULE HEMORRHAGE	+	ADENOMATOSIS HEMORRHAGE	++	
				LIVER		+	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT	+	
				PANCREAS			REGENERATIVE CHANGE	++	
				KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
				TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	++	
				SEMINAL VESICLE	ATROPHY	+	ATROPHY	++	
				PITUITARY GLAND	HEMORRHAGE	+			
				THYROID GLANDS			C-CELL ADENOMA (UNILATERAL)		

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT

++ , MODERATE

+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0244 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0244	W 694	HARDERIAN GLANDS			HYPERSECRETION (BILATERAL)	+	
		BRAIN			PIGMENTATION	+	
		SPINAL CORD			PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS	2) GRADE : NEGATIVE NOT PRESENTED	3) GRADE OF MASS :
4) DAYS : AFTER START OF TREATMENT	+ , SLIGHT ++ , MODERATE +++ , SEVERE	A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE

APPENDIX 11-M3-0245
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0245	W	671	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	SQUAMOUS CELL CARCINOMA : SKIN
			SPLEEN			EXTRAMEDULLARY HEMATOPOIESIS	++	PHEOCHROMOCYTOMA: ADRENAL GLANDS
			NASAL CAVITY			INFLAMMATION	++	
			LUNG			HISTIOCYTOSIS	+	
			PAROTID GLANDS			DEGENERATIVE CHANGE OF ACINI (UNILATERAL)	++	
			LIVER	ROUGHNESS OF SURFACE YELLOWISH CHANGE	+ +++	FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA EXTRAMEDULLARY HEMATOPOIESIS FOCAL NECROSIS	++ + + +	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+++	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL) FIBROSIS (BILATERAL)	+++ ++ + ++ ++	
			URINARY BLADDER			INFILTRATION OF LEUCOCYTES	+	
			TESTES	ATROPHY (BILATERAL)	+++	ATROPHY (BILATERAL)	+++	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0245 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0245	W	671	TESTES					
			EPIDIDYMIS	MASS (UNILATERAL)	A			HYPERPLASIA OF LEYDIG CELLS (UNILATERAL) + PERIVASCULITIS (BILATERAL) ++ GIANT CELL GRANULOMA (UNILATERAL) +++
			PROSTATIC GLAND					INFILTRATION OF LEUCOCYTES +
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	+++ +++			ADENOMA
			ADRENAL GLANDS					VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL) ++ PHEOCHROMOCYTOMA (UNILATERAL)
			SKIN	MASS	A			SQUAMOUS CELL CARCINOMA
			BRAIN					DILATATION OF CEREBRAL VENTRICLE + HEMORRHAGE +
			SPINAL CORD					PIGMENTATION +

1) FATE : W , KILLED IN EXTREMIS
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M3-0246
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0246	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	++ + +	
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	++ +++			
			SEMINAL VESICLE	ATROPHY	++			
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	++ ++			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 ++ , SLIGHT A , SMALL AND/OR SINGULAR
 +++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0247

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2) 3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0247	W	540	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	FIBROSARCOMA: SKIN (SUBCUTIS)
			SPLEEN			EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFLAMMATION	+	
			LUNG			CALCIFICATION OF VASCULAR WALL OSSEOUS TISSUE	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SWELLING OF KUPFFER CELLS PROLIFERATION OF BILE DUCT INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			REGENERATIVE CHANGE	++	
			KIDNEYS			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			URINARY BLADDER			INFILTRATION OF LEUCOCYTES	+	
			TESTES	NODULE (UNILATERAL)	+	LEYDIG CELL TUMOR (UNILATERAL) HEMORRHAGE (UNILATERAL)	++	
			PROSTATIC GLAND	MASS	A	INFLAMMATION	++	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT

++ , MODERATE

+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0247 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0247	W	540	PROSTATIC GLAND					
			SKIN (SUBCUTIS)	MASS	C			
			BRAIN					
			SPINAL CORD					
						GIANT CELL GRANULOMA	++	
						FIBROSARCOMA		
						PIGMENTATION	+	
						PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0248
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0248	X	705	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			HEART			FIBROSIS	++	: MULTIPLE ORGANS SQUAMOUS CELL CARCINOMA
			LYMPH NODES (PULM. HILUS)			BLOOD ABSORPTION	+	: ORAL CAVITY LEYDIG CELL TUMOR: TESTES
			SPLEEN		+++			SQUAMOUS CELL PAPILLOMA : SKIN
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	+	PNEUMOCYSTOMA: ADRENAL GLANDS
			NASAL CAVITY			CONGESTION	++	
			LUNG		+++	PNEUMOCYSTOMA, METASTASIS CONGESTION	++	
			ORAL CAVITY			SQUAMOUS CELL CARCINOMA		
			TONGUE		+			
			LIVER		+++	FATTY DEGENERATION OF HEPATIC CELLS + PROLIFERATION OF BILE DUCT	++	
			PANCREAS			REGENERATIVE CHANGE	+++	
			KIDNEYS		+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES		++	LEYDIG CELL TUMOR (BILATERAL)	+	
			THYROID GLANDS		+			

1) FATE : X / FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M3-0248 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	2) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0248	X	705	THYROID GLANDS	(UNILATERAL)				
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	+++	PHEOCHROMOCYTOMA (UNILATERAL), PRIMARY		
			SKIN	NODULE	+	SQUAMOUS CELL PAPILLOMA		
			MAMMARY GLAND			HYPERPLASIA	++	
			BRAIN	HEMORRHAGE	++	PIGMENTATION LEUKEMIC EMBOLISM	+ +++	
			SPINAL CORD			LEUKEMIC EMBOLISM PIGMENTATION	+ +	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M3-0249

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0249	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER		+	WHITISH PATCH		
			KIDNEYS					CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)
			TESTES	ENLARGEMENT (BILATERAL)	+++			++
				NODULE (BILATERAL)	+++			+
			SEMINAL VESICLE	ATROPHY	+++			+
			SKIN	NODULE ULCER	++ ++			

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M3-0250

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0250	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER		++			
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES	ENLARGEMENT (BILATERAL)	+			
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	+			

1) FATE : Y / KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M3-0251

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0251	Y	736	LUNG			CALCIFICATION OF VASCULAR WALL	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	++ + ++	
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	+++ +++			
			SEMINAL VESICLE	ATROPHY	+++			

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :
A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

APPENDIX 11-M3-0252

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 100 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0252	Y	736	THYMUS	ENLARGEMENT	+			
			LUNG					
			KIDNEYS	ROUGHNESS OF SURFACE (UNILATERAL)	+			
						CALCIFICATION OF VASCULAR WALL	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ + ++	
			URINARY BLADDER	EXPANSION	+			
			TESTES	ENLARGEMENT (BILATERAL) NODULE (BILATERAL)	+++ +++			
			PROSTATIC GLAND	NODULE	+++			
			SKIN (SUBCUTIS)	MASS	A			

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

4) DAYS : AFTER START OF TREATMENT A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0301 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0301	Y	733	THYROID GLANDS					
C-CELL ADENOMA (UNILATERAL)								

1) FATE : Y , KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0302
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0302	Y	733	PERITONEUM	NODULE	++	MESOTHELIOOMA		MESOTHELIOOMA: PERITONEUM
			HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (PULM.HILUS)			BLOOD ABSORPTION	+	
			SPLEEN	NODULE	+	HEMOSIDEROSIS FAT INFILTRATION	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			SUBLINGUAL GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			LIVER			PROLIFERATION OF DUCT (UNILATERAL)	+	
						FATTY DEGENERATION OF HEPATIC CELLS	+	
						FOCAL ATROPHY OF HEPATIC CELLS	+	
						SMALL GRANULOMA	+	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :

+ , SLIGHT A , SMALL AND/OR SINGULAR

++ , MODERATE B , MEDIAL AND/OR SPORADIC

+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0302 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0302	Y	733	LIVER					
			KIDNEYS					
						INFILTRATION OF LEUCOCYTES	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES			LEYDIG CELL TUMOR (BILATERAL)		
				ATROPHY (BILATERAL)	++			
				NODULE (BILATERAL)	++			
			EPIDIDYMIS					
				NODULE	++			
			PROSTATIC GLAND					
						INFLAMMATION	+	
			SEMINAL VESICLE			ATROPHY	+	
			HARDERIAN GLANDS		+			
						INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0303

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0303	Y	733	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		LEYDIG CELL TUMOR: TESTES C-CELL ADENOMA: THYROID GLANDS
			HEART			FIBROSIS MYOCARDITIS	+	+
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	+
			SPLEEN			HEMOSIDEROSIS	+	+
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	+
			LUNG			CALCIFICATION OF VASCULAR WALL	+	+
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	+
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	+
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		
			PROSTATIC GLAND	ATROPHY	+++			
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	++

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0303 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0303	Y	733	THYROID GLANDS	ENLARGEMENT (UNILATERAL)	+	C-CELL ADENOMA (UNILATERAL)		
			SKIN	MASS	A	KERATOSIS	++	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0304

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0304	Y	733	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			CONGESTION HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS GRANULATION PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND		+++	INFLAMMATION	+++	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			PITUITARY GLAND	HEMORRHAGE	+	HEMORRHAGE	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0304 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0304	Y	733	HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE
 4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

3) GRADE OF MASS :
 A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0305

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0305	Y	733	HEART			FIBROSIS	++	FIBROSARCOMA: SKIN (SUBCUTIS)
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	++ +	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ ++ ++ +	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	++ ++ ++ +	
			TESTES	ENLARGEMENT (BILATERAL) SOFTENING (UNILATERAL)	+++ +++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0305 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0305	Y	733	TESTES					
			NODULE (BILATERAL)		+++			
			PROSTATIC GLAND			ATROPHY FIBROSIS HYPERPLASIA OF MUCOSAL EPITHELIUM	+ + +	
			SEMINAL VESICLE	ATROPHY	+			
			SKIN (SUBCUTIS)	MASS	C	FIBROSARCOMA		

1) FATE : Y , KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0306

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0306	Y	733	THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	FIBROADENOCARCINOMA : MAMMARY GLAND
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	LEYDIG CELL TUMOR: TESTES
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND			HYPERPLASIA OF MUCOSAL EPITHELIUM	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			MAMMARY GLAND	MASS	C	FIBROADENOCARCINOMA		
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0307 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0307	W	690	HARDERIAN GLANDS			HYPERSECRETION (UNILATERAL)	+	
			BRAIN	HEMORRHAGE	+	HEMORRHAGE	+++	
			SPINAL CORD			HEMORRHAGE	+++	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0308

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0308	Y	733	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			CONGESTION HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS HYPERPLASTIC NODULE	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0308 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0308	Y	733	KIDNEYS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+ + +++	LEYDIG CELL TUMOR (BILATERAL)		
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	++	ATROPHY	+	

1) FATE : Y , KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0309

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0309	W	574	HEART			FIBROSIS	+	ASTROCYTOMA: BRAIN
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS	++	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			STOMACH			INFLAMMATION	+	
			LIVER	DISCOLORATION	++	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT INFILTRATION OF LEUCOCYTES	++ + +	
			PANCREAS			INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	
			TESTES			HYPERPLASIA OF LEYDIG CELLS (BILATERAL)	+	
			SEMINAL VESICLE			ATROPHY	+	
			EYE BALLS			CALCIFICATION, SCLERA (UNILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0309 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0309	W	574	HARDERIAN GLANDS			HYPERSECRETION (BILATERAL)	+	
			BRAIN	HEMORRHAGE EDEMA	+	ASTROCYTOMA PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0310

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0310	Y	733	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM. HILUS)			BLOOD ABSORPTION	+	
			SPLEEN	ENLARGEMENT	+	HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL INFILTRATION OF LEUCOCYTES	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA EXTRAMEDULLARY HEMATOPOIESIS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0310 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0310	Y	733	KIDNEYS					
			TESTES	ATROPHY (UNILATERAL) NODULE (UNILATERAL)	+++ +++			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)
			SEMINAL VESICLE					
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+ +			LEYDIG CELL TUMOR (UNILATERAL) HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)
			MAMMARY GLAND					ATROPHY
			HARDERIAN GLANDS					ADENOMA
								DILATATION OF GLAND
								INFILTRATION OF LEUCOCYTES (UNILATERAL)

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0311
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004								
ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0311	W	720	MULTIPLE ORGANS			MALIGNANT LYMPHOMA (HISTIOCYTIC SARCOMA)		MALIGNANT LYMPHOMA (HISTIOCYTIC SARCOMA) : MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES
			HEART			FIBROSIS	++	
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (PULM.HILUS)			BLOOD ABSORPTION	+	
			SPLEEN	ENLARGEMENT	+++	EXTRAMEDULLARY HEMATOPOIESIS	+++	
			BONE MARROW			OSTEOGENESIS	++	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	ENLARGEMENT NODULE	+++ +++	PROLIFERATION OF BILE DUCT FIBROSIS FATTY DEGENERATION OF HEPATIC CELLS	++ +++ +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
			TESTES	ATROPHY (BILATERAL)	+	LEYDIG CELL TUMOR (BILATERAL)		
1) FATE : W / KILLED IN EXTREMIS				2) GRADE : NEGATIVE NOT PRESENTED		3) GRADE OF MASS :		
				+ / SLIGHT		A / SMALL AND/OR SINGULAR		
				++ / MODERATE		B / MEDIAL AND/OR SPORADIC		
				+++ / SEVERE		C / LARGE AND/OR MULTIPLE		
4) DAYS : AFTER START OF TREATMENT								

APPENDIX 11-M4-0311 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0311	W	720	TESTES			NODULE (BILATERAL)	++	
			SEMINAL VESICLE	ATROPHY	+			ATROPHY
			ADRENAL GLANDS					VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)
			BRAIN					PIGMENTATION

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0312
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0312	W	559	THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	SEBACEOUS SQUAMOUS CELL CARCINOMA: SKIN
			LYMPH NODES (SUBMAXI.) SPLEEN	ENLARGEMENT	+	INFILTRATION OF LEUCOCYTES	+	LEYDIG CELL TUMOR: TESTES
			BONE MARROW			HEMOSIDEROSIS	+++	ADENOMA: PITUITARY GLAND
			NASAL CAVITY			OSTEOGENESIS	+	
			LUNG			INFILTRATION OF LEUCOCYTES	+	
			PAROTID GLANDS	ENLARGEMENT (UNILATERAL)	+	CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	NODULE (UNILATERAL)	+	LEYDIG CELL TUMOR (UNILATERAL)	+	
			SEMINAL VESICLE			ATROPHY	+	
			PITUITARY GLAND	ENLARGEMENT	+	ADENOMA	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+, SLIGHT
++, MODERATE
+++, SEVERE

APPENDIX 11-M4-0312 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0312	W	559	PITUITARY GLAND	REDDISH CHANGE	+			
			SKIN	MASS	A	SEBACEOUS SQUAMOUS CELL CARCINOMA		
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0313
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004				PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS	
ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2) 3) GRADE
0313	Y	733	HEART	FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +
			THYMUS	HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+
			SPLEEN	HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+
			BONE MARROW	OSTEOGENESIS	+
			NASAL CAVITY	INFILTRATION OF LEUCOCYTES	+
			LARYNGOPHARYNX	CYSTIC DILATATION OF GLAND	+
			LUNG	CALCIFICATION OF VASCULAR WALL SWELLING OF ALVEOLAR EPITHELIUM	+
			LIVER	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+
			PANCREAS	ISLET-CELL ADENOMA EXOCRINE ADENOMA	+
			KIDNEYS	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0313 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0313	Y	733	KIDNEYS			INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES		+++	NODULE (BILATERAL)		LEYDIG CELL TUMOR (BILATERAL)
			SEMINAL VESICLE	ATROPHY	+++		+	ATROPHY
			THYROID GLANDS					HYPERPLASIA OF C-CELLS (UNILATERAL) +
			ADRENAL GLANDS					PHEOCHROMOCYTOMA (UNILATERAL)
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0314
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0314	Y	734	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	PHEOCHROMOCYTOMA: ADRENAL GLANDS
			SPLEEN	ENLARGEMENT	+	HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	LIPOSARCOMA: SKIN (SUBCUTITIS)
			BONE MARROW			OSTEOGENESIS	+	LEYDIG CELL TUMOR: TESTES
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			TRACHEA			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	NODULE	++	FATTY DEGENERATION OF HEPATIC CELLS HYPERPLASTIC NODULE GRANULATION SMALL GRANULOMA PROLIFERATION OF BILE DUCT	+	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	++	INFILTRATION OF LEUCOCYTES (BILATERAL) CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++	
					+++		+++	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0314 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0314	Y	734	KIDNEYS			PIGMENTATION (BILATERAL)	+	
			TESTES	ATROPHY (UNILATERAL) NODULE (BILATERAL)	+++ +++	LEYDIG CELL TUMOR (BILATERAL)		
			PROSTATIC GLAND	ATROPHY	+			
			SEMINAL VESICLE	ATROPHY	+	ATROPHY	+	
			PITUITARY GLAND	HEMORRHAGE	+	ADENOMA		
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	++	PHEOCHROMOCYTOMA (UNILATERAL)		
			SKIN (SUBCUTIS)	MASS	C	LIPOSARCOMA		
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0315
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0315	Y	734	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS MYOCARDITIS	++ +	PAPILLARY ADENOCARCINOMA : LUNG ADENOMA: PITUITARY GLAND C-CELL ADENOMA: THYROID GLANDS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			PAPILLARY ADENOCARCINOMA CALCIFICATION OF VASCULAR WALL	+	
			LIVER		++	FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ ++ ++ +	
			KIDNEYS			INFILTRATION OF LEUCOCYTES (BILATERAL) CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
			TESTES			HYPERPLASIA OF LEYDIG CELLS	+	
1) FATE : Y , KILLED ON SCHEDULE				2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE		3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE		
4) DAYS : AFTER START OF TREATMENT								

APPENDIX 11-M4-0315 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0315	Y	734	TESTES			(BILATERAL)		
			SEMINAL VESICLE	ENLARGEMENT	+			
			PITUITARY GLAND	HEMORRHAGE	+	ADENOMA		
			THYROID GLANDS			C-CELL ADENOMA (UNILATERAL)		
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0316

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0316	.Y	734	HEART			FIBROSIS	+	ISLET-CELL ADENOMA
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	: PANCREAS FIBROMA: SKIN (SUBCUTIS) LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM. HILUS) SPLEEN			BLOOD ABSORPTION	++	
						HEMOSIDEROSIS	+	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
						ENLARGEMENT OF FOLLICLE	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS	+	
				NODULE	+	FOCAL ATROPHY OF HEPATIC CELLS	+	
						SMALL GRANULOMA	+	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
			PANCREAS		+	ISLET-CELL ADENOMA	++	
				NODULE		ATROPHY OF PANCREATIC ACINUS		
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
			TESTES		+	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT

++ , MODERATE

+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0316 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0316	Y	734	TESTES	ENLARGEMENT (UNILATERAL)	+++			
				NODULE (BILATERAL)	+++			
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+++	
			SKIN (SUBCUTIS)	MASS	C	FIBROMA		
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0317

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0317	Y	734	HEART			FIBROSIS	+	LIPOMA: SKIN (SUBCUTIS)
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN	ENLARGEMENT	+	HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA ANGIECTASIA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ + + + + + +	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+ + + +	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		
			PROSTATIC GLAND			INFLAMMATION	+	
1) FATE : Y , KILLED ON SCHEDULE				2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE		3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE		
4) DAYS : AFTER START OF TREATMENT								

APPENDIX 11-M4-0317 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0317	Y	734	PROSTATIC GLAND					
			SEMINAL VESICLE	ATROPHY	+++			HYPERPLASIA OF MUCOSAL EPITHELIUM +
			SKIN (SUBCUTIS)	MASS	C			ATROPHY ++ LIPOMA

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0318

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

			STUDY NO. 83004			
ANIMAL NUMBER	1) FATE DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0318	W 610	MULTIPLE ORGANS	DISCOLORATION YELLOWISH CHANGE	+		
		ABDOMINAL CAVITY	ASCITES (BLOODY)	+++		
		PERITONEUM	NODULE	++	MESOTHELIOMA	MESOTHELIOMA: PERITONEUM LEYDIG CELL TUMOR: TESTES
		HEART			FIBROSIS	+
		THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+
		LYMPH NODES (PULM. HILUS) SPLEEN			BLOOD ABSORPTION	+
		BONE MARROW	ENLARGEMENT	++	EXTRAMEDULLARY HEMATOPOIESIS	+++
		LUNG			ACTIVATION OF HEMATOPOIESIS	++
		LIVER	YELLOWISH CHANGE	+++	ANEMIA CALCIFICATION OF VASCULAR WALL MACROPHAGE MIGRATION IN PERIVASCULAR AREA EXTRAMEDULLARY HEMATOPOIESIS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+
		PANCREAS			ATROPHY OF PANCREATIC ACINUS	+
		KIDNEYS			CHRONIC PROGRESSIVE	+
1) FATE : W , KILLED IN EXTREMIS			2) GRADE : NEGATIVE NOT PRESENTED		3) GRADE OF MASS :	
					A , SMALL AND/OR SINGULAR	
					B , MEDIAL AND/OR SPORADIC	
					C , LARGE AND/OR MULTIPLE	
4) DAYS : AFTER START OF TREATMENT			2) GRADE : NEGATIVE NOT PRESENTED			
					+ , SLIGHT	
					++ , MODERATE	
					+++ , SEVERE	

APPENDIX 11-M4-0318 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0318	W	610	KIDNEYS			GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ +	
			TESTES		++	LEYDIG CELL TUMOR (UNILATERAL) ATROPHY (UNILATERAL)	+++	
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	+	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0319

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0319	X	706	HEART			FIBROSIS	++	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN	ENLARGEMENT	+	HEMOSIDEROSIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	CONGESTION	+++	CONGESTIVE EDEMA	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA FOCAL ATROPHY OF HEPATIC CELLS ANGIECTASIA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ + + ++ ++ +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ + +	
			TESTES	ATROPHY (BILATERAL)	+++	ATROPHY (BILATERAL)	++	

1) FATE : X , FOUND DEAD 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0319 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0319	X	706	TESTES					
			PROSTATIC GLAND			HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)	+	
			SEMINAL VESICLE			HYPERPLASIA OF MUCOSAL EPITHELIUM	+	
			PITUITARY GLAND	MASS	A	ATROPHY	+	
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	+	
			MAMMARY GLAND			DILATATION OF GLAND	+	
			BRAIN	IMPRESSION	+++	DILATATION OF CEREBRAL VENTRICLE	+	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0320

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0320	Y	734	HEART			FIBROSIS	+	ISLET-CELL ADENOMA
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	: PANCREAS LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	+	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA	+	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	++	
						INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ISLET-CELL ADENOMA	+	
						ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0320 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0320	Y	734	KIDNEYS					
			TESTES	ATROPHY (UNILATERAL) ENLARGEMENT (UNILATERAL) NODULE (BILATERAL)	+ + +++	INFILTRATION OF LEUCOCYTES (UNILATERAL) LEYDIG CELL TUMOR (BILATERAL)	+	
			SEMINAL VESICLE	ATROPHY	+	ATROPHY	+	
			THYROID GLANDS			HYPERPLASIA OF C-CELLS (UNILATERAL)	+	
			ADRENAL GLANDS			HYPERPLASIA OF MEDULLARY CELLS (UNILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0321

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0321	W	711	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (PULM. HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	+++	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			LUNG			ADENOMATOSIS	++	
						CALCIFICATION OF VASCULAR WALL	+	
			LIVER	YELLOWISH CHANGE	++	FATTY DEGENERATION OF HEPATIC CELLS GRANULATION	+++	
						SMALL GRANULOMA	++	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	++	
			TESTES	ATROPHY (BILATERAL)	+++	ATROPHY (BILATERAL) HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)	++	
			SEMINAL VESICLE			ATROPHY	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0321 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0321	W	711	PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ +++	ADENOMA		
			THYROID GLANDS					
			BRAIN	IMPRESSION	+	HYPERPLASIA OF C-CELLS (UNILATERAL) + PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M4-0322
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0322	W	588	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA : MULTIPLE ORGANS
			HEART			FIBROSIS	++	
			SPLEEN	ENLARGEMENT ROUGHNESS OF SURFACE	+++ +	RUPTURE	++	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	NODULE	++	CALCIFICATION OF VASCULAR WALL	+	
			LIVER	ENLARGEMENT ROUGHNESS OF SURFACE	++ +	FATTY DEGENERATION OF HEPATIC CELLS	+++	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS FAT INFILTRATION	+++ ++	
			KIDNEYS			PIGMENTATION (BILATERAL)	++	
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	++	
			MAMMARY GLAND			DILATATION OF GLAND	+	
			HARDERIAN GLANDS			HYPERSECRETION (BILATERAL)	+	
			BRAIN			HEMORRHAGE	++	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0323
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0323	W	687	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM.HILUS)			BLOOD ABSORPTION	+	
			SPLEEN	NODULE	+	PROLIFERATION OF RETICULAR CELLS HEMOSIDEROSIS	++ +	
			BONE MARROW			OSTEOGENESIS	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ ++ ++ ++ +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ ++ +	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		
			SEMINAL VESICLE			ATROPHY	+	
			PITUITARY GLAND	ENLARGEMENT	+	HEMORRHAGE	+	
1) FATE : W , KILLED IN EXTREMIS								
2) GRADE : NEGATIVE NOT PRESENTED								
3) GRADE OF MASS :								
A , SLIGHT								
++ , MODERATE								
+++ , SEVERE								
4) DAYS : AFTER START OF TREATMENT								
A , SMALL AND/OR SINGULAR								
B , MEDIAL AND/OR SPORADIC								
C , LARGE AND/OR MULTIPLE								

APPENDIX 11-M4-0323 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0323	W	687	PITUITARY GLAND	REDDISH CHANGE	+			
			SKIN	SCAB	++	DERMATITIS	++	
			BRAIN			PIGMENTATION HEMORRHAGE	+ +	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0324

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0324	X	344	PLEURA	MASS	C	MALIGNANT FIBROUS HISTIOCYTOMA, PRIMARY		MALIGNANT FIBROUS HISTIO- CYTOMA: PLEURA
			HEART	DISCOLORATION	+			
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	+	
						EXTRAMEDULLARY HEMATOPOIESIS	++	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	++	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
						HEMORRHAGE	+	
			LARYNGOPHARYNX			HEMORRHAGE	++	
			LUNG	MASS	A	MALIGNANT FIBROUS HISTIOCYTOMA, METASTASIS		
			LIVER	YELLOWISH CHANGE	+	FATTY DEGENERATION OF HEPATIC CELLS CONGESTION FOCAL NECROSIS PROLIFERATION OF BILE DUCT	++ ++ + ++	
			URINARY BLADDER			HYPERPLASIA OF MUCOSAL EPITHELIUM HEMORRHAGE	+ +	
			EYE BALLS	GRAYISH CHANGE (UNILATERAL)	+	CATARACT (UNILATERAL)	+++	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0325
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0325	W	694	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			HEART			FIBROSIS	+	: MULTIPLE ORGANS LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN	ENLARGEMENT	+++	CONGESTION NECROSIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	REDDISH CHANGE NODULE	+	HEMORRHAGE	++	
			LIVER		++	FATTY DEGENERATION OF HEPATIC CELLS FOCAL NECROSIS PROLIFERATION OF BILE DUCT	++ + ++	
			KIDNEYS	WHITISH PATCH (BILATERAL)	++	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		
			SEMINAL VESICLE	ATROPHY	+	ATROPHY	+	
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0325 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0325	W	694	BRAIN			HEMORRHAGE	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0326
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0326	Y	734	PERITONEUM			INFLAMMATION	+	LEYDIG CELL TUMOR: TESTES
			HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			SUBLINGUAL GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES HYPERPLASTIC NODULE	++ + + + +	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0326 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0326	Y	734	KIDNEYS			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	+
			TESTES	NODULE (BILATERAL) MASS (UNILATERAL)	+++ B	LEYDIG CELL TUMOR (BILATERAL)	+	+
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0327 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0327	Y	734	TESTES	NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			THYROID GLANDS			HYPERPLASIA OF C-CELLS (UNILATERAL)	+	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE
 2) GRADE : NEGATIVE NOT PRESENTED
 3) GRADE OF MASS :
 A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE
 4) DAYS : AFTER START OF TREATMENT
 + , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

APPENDIX 11-M4-0328
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0328	Y	734	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS	ENLARGEMENT	+	HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	PAPILLARY ADENOMA: LUNG
			LYMPH NODES (PULM. HILUS) SPLEEN	NODULE	+	BLOOD ABSORPTION CONGESTION HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS PROLIFERATION OF RETICULAR CELLS	++	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			PAPILLARY ADENOMA CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++	

1) FATE : Y , KILLED ON SCHEDULE
4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0328 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0328	Y	734	KIDNEYS					
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+	ATROPHY	++	
			BRAIN			PIGMENTATION	+	

APPENDIX 11-M4-0329
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0329	W	713	MULTIPLE ORGANS					
			THYMUS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			LYMPH NODES (MESENT.)	ENLARGEMENT	++			: MULTIPLE ORGANS
			LYMPH NODES (RENAL.HILUS)	ENLARGEMENT	+++			C-CELL ADENOMA: THYROID GLANDS
			SPLEEN	ENLARGEMENT	+++			ADENOMA: PITUITARY GLAND
			BONE MARROW			HEMOSIDEROSIS	+	LEYDIG CELL TUMOR: TESTES
			NASAL CAVITY			OSTEOGENESIS	+	
			LUNG	REDDISH CHANGE	+++	INFILTRATION OF LEUCOCYTES	+	
			LIVER	ENLARGEMENT	+++	EDEMA HEMORRHAGE	++ ++	
			PANCREAS			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	+++ +	
			KIDNEYS			ATROPHY OF PANCREATIC ACINUS	+	
						CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ + +	

TESTES ATROPHY ++ LEYDIG CELL TUMOR (UNILATERAL)

1) FATE : W , KILLED IN EXTREMIS 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0329 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0329	W	713	TESTES	(BILATERAL)				
			PROSTATIC GLAND					HYPERPLASIA OF LEYDIG CELLS (UNILATERAL) +
			SEMINAL VESICLE					INFLAMMATION +
			PITUITARY GLAND					ATROPHY +
			THYROID GLANDS					ADENOMA
			ADRENAL GLANDS					C-CELL ADENOMA (UNILATERAL)
								HYPERPLASIA OF CORTIC CELLS (UNILATERAL) +
								VACUOLAR DEGENERATION OF CORTICAL CELLS (BILATERAL) +
			BRAIN					PIGMENTATION +

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR

B / MEDIAL AND/OR SPORADIC

C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0330
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0330	Y	734	HEART			FIBROSIS	+	PAPILLARY ADENOMA: LUNG
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	ADENOMA: PITUITARY GLAND
			LYMPH NODES (PULM. HILUS) SPLEEN			BLOOD ABSORPTION	+	LEYDIG CELL TUMOR: TESTES
				ENLARGEMENT IMPRESSION	++ +	CONGESTION EXTRAMEDULLARY HEMATOPOIESIS FIBROSIS	++ ++ ++	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	++	
			LARYNGOPHARYNX			INFLAMMATION	+	
			LUNG	NODULE	++	PAPILLARY ADENOMA CALCIFICATION OF VASCULAR WALL	+	
			LIVER	ENLARGEMENT YELLOWISH CHANGE	++ ++	FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS ANGIECTASIA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ ++ ++ ++ +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ / SLIGHT A / SMALL AND/OR SINGULAR
++ / MODERATE B / MEDIAL AND/OR SPORADIC
+++ / SEVERE C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0330 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0330	Y	734	KIDNEYS					
			TESTES	ATROPHY (BILATERAL) NODULE (BILATERAL)	+ +++			INFILTRATION OF LEUCOCYTES (UNILATERAL) LEYDIG CELL TUMOR (BILATERAL)
			PROSTATIC GLAND					
			PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+ +			HYPERPLASIA OF MUCOSAL EPITHELIUM ADENOMA
			ADRENAL GLANDS					HYPERPLASIA OF MEDULLARY CELLS (UNILATERAL)
			BRAIN					PIGMENTATION
			SPINAL CORD					PIGMENTATION

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0331

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0331	Y	735	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (PULM. HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	+	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	NODULE	+	FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA ANGIECTASIA	++	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
						HYPERPLASTIC NODULE	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	

1) FATE : Y / KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0331 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0331	Y	735	KIDNEYS					
			TESTES	ATROPHY (BILATERAL) NODULE (BILATERAL)	+ ++			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)
			PITUITARY GLAND	HEMORRHAGE ENLARGEMENT	+ +			HYPERPLASIA OF LEYDIG CELLS (BILATERAL)
			ADRENAL GLANDS					VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)
			MAMMARY GLAND					DILATATION OF GLAND

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0332

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0332	W	659	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			HEART			FIBROSIS	+	: MULTIPLE ORGANS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	ADENOMA: PITUITARY GLAND
			SPLEEN	ENLARGEMENT	+++	CONGESTION	+	LEYDIG CELL TUMOR: TESTES
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	NODULE	+	ADENOMATOSIS CALCIFICATION OF VASCULAR WALL	++ +	
			LIVER	ROUGHNESS OF SURFACE ENLARGEMENT YELLOWISH CHANGE	++ + +	FATTY DEGENERATION OF HEPATIC CELLS BILE THROMBI ANGIECTASIA PROLIFERATION OF BILE DUCT WITH FIBROSIS	++ + + ++	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+ +	
			TESTES	NODULE (BILATERAL)	++	LEYDIG CELL TUMOR (BILATERAL)	+	
			SEMINAL VESICLE			ATROPHY	+	
			PITUITARY GLAND	REDDISH CHANGE	+	ADENOMA		

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0332 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0332	W	659	HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	

1) FATE : W , KILLED <u>IN EXTREMIS</u>	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M4-0333

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0333	Y	735	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			PITUITARY GLAND			ADENOMA		

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0333 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0333	Y	735	PITUITARY GLAND					
						CYST	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE . 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0334

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0334	X	649	THYMUS					ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM.HILUS) SPLEEN					
			BONE MARROW					
			NASAL CAVITY					
			LUNG					
			LIVER					
			PANCREAS					
			KIDNEYS					
			TESTES					
			PROSTATIC GLAND					
			SEMINAL VESICLE					
			PITUITARY GLAND					

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0334 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0334	X	649	PITUITARY GLAND	ENLARGEMENT	+++			
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+	
			BRAIN			DILATATION OF CEREBRAL VENTRICLE	++	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0335
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0335	Y	735	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (PULM. HILUS)			BLOOD ABSORPTION	+	
			SPLEEN			HEMOSIDEROSIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES HYPERPLASTIC NODULE	++ + + + + +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+ +	
			TESTES	ENLARGEMENT (UNILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0335 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0335	Y	735	TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			ADRENAL GLANDS			VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0336

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0336	Y	735	HEART			FIBROSIS	+	FIBROMA: SKIN (SUBCUTIS)
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			CONGESTION HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS + FOCAL ATROPHY OF HEPATIC CELLS + SMALL GRANULOMA + PROLIFERATION OF BILE DUCT + WITH FIBROSIS + INFILTRATION OF LEUCOCYTES +	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGNENTATION (BILATERAL)	+	
			TESTES		+++	LEYDIG CELL TUMOR (BILATERAL)	+	
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE		+++	ATROPHY	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0336 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0336	Y	735	SKIN (SUBCUTIS)	MASS	B	FIBROMA		

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

4) DAYS : AFTER START OF TREATMENT

A , SMALL AND/OR SINGULAR

B , MEDIAL AND/OR SPORADIC

C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0337

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0337	Y	735	THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	PAPILLARY ADENOMA: LUNG PHEOCHROMOCYTOMA: ADRENAL GLANDS
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	NECROSIS: ADRENAL GLANDS ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES
			BONE MARROW			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			NASAL CAVITY			OSTEOGENESIS	+	
			LARYNGOPHARYNX			INFILTRATION OF LEUCOCYTES	+	
			LUNG			INFILTRATION OF LEUCOCYTES	+	
			NODULE		++	PAPILLARY ADENOMA PHEOCHROMOCYTOMA, METASTASIS CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+++	

1) FATE : Y , KILLED ON SCHEDULE

4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0337 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0337	Y	735	KIDNEYS					
			URINARY BLADDER					
			TESTES	NODULE (UNILATERAL)	++			PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)
			PROSTATIC GLAND	NODULE	+++			
			PITUITARY GLAND	ENLARGEMENT	++			INFILTRATION OF LEUCOCYTES
			THYROID GLANDS					LEYDIG CELL TUMOR (BILATERAL)
			ADRENAL GLANDS	ENLARGEMENT (UNILATERAL)	++			INFLAMMATION
								ADENOMA
								HYPERPLASIA OF C-CELLS (UNILATERAL)
								PHEOCHROMOCYTOMA (UNILATERAL), PRIMARY NECROSIS (UNILATERAL)
			MAMMARY GLAND					DILATATION OF GLAND
			BRAIN					PIGMENTATION
			SPINAL CORD					PIGMENTATION

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0338
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0338	Y	735	HEART			FIBROSIS	++	C-CELL ADENOMA: THYROID GLANDS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			HYPERPLASTIC NODULE FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+++ + ++	
			TESTES		+++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
+ , SLIGHT A , SMALL AND/OR SINGULAR
++ , MODERATE B , MEDIAL AND/OR SPORADIC
+++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0338 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0338	Y	735	TESTES	ENLARGEMENT (UNILATERAL) SOFTENING (UNILATERAL) +	+++			
			SEMINAL VESICLE	ATROPHY	+	ATROPHY	+	
			THYROID GLANDS	ENLARGEMENT (UNILATERAL)	++	C-CELL ADENOMA (UNILATERAL)		
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0339

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0339	W	712	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN	IMPRESSION	+	PROLIFERATION OF RETICULAR CELLS HEMOSIDEROSIS	++ +	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			ADENOMATOSIS CALCIFICATION OF VASCULAR WALL	+	
			LIVER	YELLOWISH CHANGE	+	FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA CHOLANGIOFIBROSIS INFILTRATION OF LEUCOCYTES	+++ ++ + +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			TESTES	NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		
			PROSTATIC GLAND			INFLAMMATION	+	

1) FATE : W / KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0339 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0339	W	712	SEMINAL VESICLE			ATROPHY	+	
			PITUITARY GLAND	EDEMA	+	CYST HEMORRHAGE	++ ++	
			EYE BALLS	GRAYISH CHANGE (UNILATERAL)	+++	CATARACT (UNILATERAL) RETINAL ATROPHY (UNILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	+ +++ +	
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			OPTIC NERVE			GLIOSIS (UNILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0340

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0340	Y	735	HEART			FIBROSIS	+	PAPILLARY ADENOMA: LUNG
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	++	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	NODULE	+	PAPILLARY ADENOMA OSSEOUS TISSUE CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT INFILTRATION OF LEUCOCYTES HYPERPLASTIC NODULE	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	++	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0340 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0340	Y	735	KIDNEYS					
			TESTES	SOFTENING (UNILATERAL) +		PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			HARDERIAN GLANDS			LEYDIG CELL TUMOR (UNILATERAL) HYPERPLASIA OF LEYDIG CELLS (UNILATERAL)	+	
						INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0341

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0341	Y	735	HEART			FIBROSIS MIGRATION OF HEMOSIDERIN-LADEN CELLS	++ +	ADENOMA: PITUITARY GLAND LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSES	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	NODULE	+	ADENOMATOSIS CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ ++ ++ ++ +	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	++ +	

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0341 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0341	Y	735	KIDNEYS					
			TESTES	SOFTENING (BILATERAL) NODULE (BILATERAL)	+ ++			INFILTRATION OF LEUCOCYTES (BILATERAL) CALCIFICATION (UNILATERAL) LEYDIG CELL TUMOR (BILATERAL)
			PROSTATIC GLAND					
			SEMINAL VESICLE	NODULE	+++			INFLAMMATION
			PITUITARY GLAND					ADENOMA

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0342

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0342	Y	736	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			LYMPH NODES (PULM.HILUS) SPLEEN			BLOOD ABSORPTION	+	
						HEMOSIDEROSIS	+	
						EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER	ROUGHNESS OF SURFACE YELLOWISH CHANGE	+	FATTY DEGENERATION OF HEPATIC CELLS	++	
					+	SMALL GRANULOMA	+	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
						PIGMENTATION (BILATERAL)	+	
						INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			TESTES	ENLARGEMENT (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ / SLIGHT

++ / MODERATE

+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR

B / MEDIAL AND/OR SPORADIC

C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0342 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0342	Y	736	TESTES					
				NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	++	ATROPHY	++	
			PITUITARY GLAND	HEMORRHAGE	+			
			BRAIN			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M4-0343

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004								
ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0343	Y	736	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	HAMARTOMA: MAMMARY GLAND
			SPLEEN			HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			HAMARTOMA, METASTASIS CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA FOCAL ATROPHY OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++	
			URINARY BLADDER			INFILTRATION OF LEUCOCYTES	+	
			TESTES			NODULE (BILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX :	1000	PPM	MALE
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STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0343	Y	736	PROSTATIC GLAND			HYPERPLASIA OF MUCOSAL INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	+	
			MAMMARY GLAND	MASS	A	HAMARTOMA, PRIMARY		
			HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	
			SPINAL CORD			PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE

4) DAYS : AFTER START OF TREATMENT

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A	, SMALL AND/OR SINGULAR
B	, MEDIAL AND/OR SPORADIC
C	, LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0344

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0344	Y	736	HEART			FIBROSIS	+	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	FIBROMA: SKIN (SUBCUTIS)
			SPLEEN			CONGESTION	+	
						Hemosiderosis	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS	++	
						SMALL GRANULOMA	+	
						FOCAL ATROPHY OF HEPATIC CELLS	+	
						PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
						INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
						PIGMENTATION (BILATERAL)	+	
						INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			TESTES	SOFTENING (UNILATERAL) + ENLARGEMENT (UNILATERAL)	+++	LEYDIG CELL TUMOR (BILATERAL)		
				NODULE (BILATERAL)	+++			
			SEMINAL VESICLE	ATROPHY	++	ATROPHY	+	
			SKIN (SUBCUTIS)	MASS	A	FIBROMA		

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0344 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0344 Y 736 EYE BALLS
BRAIN

CALCIFICATION, SCLERA (UNILATERAL) +
PIGMENTATION +

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT		

APPENDIX 11-M4-0345
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE -OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0345	Y	736	HEART			FIBROSIS	++	LEYDIG CELL TUMOR: TESTES
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN			HEMOSIDEROSIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	++ + + + +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	+ +	
			TESTES	ENLARGEMENT (UNILATERAL)	++	LEYDIG CELL TUMOR (UNILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0345 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0345	Y	736	TESTES	NODULE (UNILATERAL) SOFTENING (UNILATERAL) +	+++		+++	
			SEMINAL VESICLE	ATROPHY	++	ATROPHY	++	
			BRAIN			PIGMENTATION	+	

1) FATE : Y / KILLED ON SCHEDULE
2) GRADE : NEGATIVE NOT PRESENTED
3) GRADE OF MASS :
A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

APPENDIX 11-M4-0346 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0346	Y	736	TESTES	(BILATERAL) NODULE (BILATERAL)	+++			
			PROSTATIC GLAND				INFLAMMATION	+
			SEMINAL VESICLE	ATROPHY	+++		ATROPHY	+
			HARDERIAN GLANDS				INFILTRATION OF LEUCOCYTES (UNILATERAL)	+
			BRAIN				PIGMENTATION	+

1) FATE : Y / KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ / SLIGHT
++ / MODERATE
+++ / SEVERE

APPENDIX 11-M4-0347 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0347	Y	736	HARDERIAN GLANDS			INFILTRATION OF LEUCOCYTES (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : Y / KILLED ON SCHEDULE
 2) GRADE : NEGATIVE NOT PRESENTED
 + / SLIGHT
 ++ / MODERATE
 +++ / SEVERE
 3) GRADE OF MASS :
 A / SMALL AND/OR SINGULAR
 B / MEDIAL AND/OR SPORADIC
 C / LARGE AND/OR MULTIPLE
 4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0348
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0348	Y	736	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			HEART			FIBROSIS	+	: MULTIPLE ORGANS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN	ENLARGEMENT	++	CONGESTION HEMOSIDEROSIS	+	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG			CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS ANGIECTASIA FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
			PANCREAS			HYPERPLASTIC NODULE	++	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL)	++	
							+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

APPENDIX 11-M4-0348 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
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0348 Y 736 KIDNEYS

INFILTRATION OF LEUCOCYTES
(BILATERAL) +

TESTES ENLARGEMENT
(BILATERAL) ++ LEYDIG CELL TUMOR (BILATERAL)

NODULE (BILATERAL) +++

SEMINAL VESICLE ATROPHY +++ ATROPHY ++

1) FATE : Y , KILLED ON SCHEDULE	2) GRADE : NEGATIVE NOT PRESENTED + , SLIGHT ++ , MODERATE +++ , SEVERE	3) GRADE OF MASS : A , SMALL AND/OR SINGULAR B , MEDIAL AND/OR SPORADIC C , LARGE AND/OR MULTIPLE
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4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0349
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0349	W	729	MULTIPLE ORGANS			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			HEART			FIBROSIS	+	: MULTIPLE ORGANS
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	NECROSIS: ADRENAL GLANDS
			SPLEEN	ENLARGEMENT	++	CONGESTION HEMOSIDEROSIS	+	NECROSIS: TESTES
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	REDDISH CHANGE	++	CALCIFICATION OF VASCULAR WALL	+	
			LIVER	MASS ROUGHNESS OF SURFACE	A ++	MIGRATION OF HEMOSIDERIN-LADEN CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	+	
			PANCREAS			HYPERPLASIA OF ISLET-CELLS	++	
			KIDNEYS	ROUGHNESS OF SURFACE (BILATERAL)	+	CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (UNILATERAL)	++ ++ +	
			TESTES	ENLARGEMENT (UNILATERAL)	+	NECROSIS (BILATERAL)	+	

1) FATE : W , KILLED IN EXTREMIS

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0349 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0349	W	729	TESTES	NODULE (BILATERAL)	+++			
			PROSTATIC GLAND	ATROPHY	+++	INFLAMMATION	+	
			SEMINAL VESICLE	ATROPHY	+++	ATROPHY	++	
			ADRENAL GLANDS	ENLARGEMENT (BILATERAL)	+	NECROSIS (BILATERAL) VACUOLAR DEGENERATION OF CORTICAL CELLS (UNILATERAL)	+++ ++	
			EYE BALLS			CALCIFICATION, SCLERA (UNILATERAL)	+	
			BRAIN			PIGMENTATION	+	

1) FATE : W , KILLED IN EXTREMIS
2) GRADE : NEGATIVE NOT PRESENTED
+ , SLIGHT
++ , MODERATE
+++ , SEVERE
3) GRADE OF MASS :
A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE
4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0350

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0350	X	728	MULTIPLE ORGANS					
			HEART			MONONUCLEAR CELL LEUKEMIA		MONONUCLEAR CELL LEUKEMIA
			THYMUS			FIBROSIS	++	: MULTIPLE ORGANS ADENOMA: PITUITARY GLAND
						HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	
			SPLEEN	ENLARGEMENT	++	CONGESTION	+	
			BONE MARROW			ACTIVATION OF HEMATOPOIESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LARYNGOPHARYNX			CYSTIC DILATATION OF GLAND	+	
			LUNG	CONGESTION	+			
			LIVER	ENLARGEMENT	+	FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT	+	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL)	+	
			TESTES	ATROPHY (BILATERAL)	+	HYPERPLASIA OF LEYDIG CELLS (BILATERAL)	+	
			PROSTATIC GLAND			INFLAMMATION	+	
			SEMINAL VESICLE			ATROPHY	+	

1) FATE : X / FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED
+ / SLIGHT
++ / MODERATE
+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR
B / MEDIAL AND/OR SPORADIC
C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0350 CONTINUED
 CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
 OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0350	X	728	PITUITARY GLAND	HEMORRHAGE	++	ADENOMA		
			BRAIN			HEMORRHAGE	+	
			SPINAL CORD			HEMORRHAGE	+	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
 ++ , MODERATE
 +++ , SEVERE

4) DAYS : AFTER START OF TREATMENT

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
 B , MEDIAL AND/OR SPORADIC
 C , LARGE AND/OR MULTIPLE

APPENDIX 11-M4-0351

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE DAYS	4) ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0351	Y	736	HEART		FIBROSIS	+	PHEOCHROMOCYTOMA: ADRENAL GLANDS
			LYMPH NODES (PULM. HILUS)		BLOOD ABSORPTION	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN		HEMOSIDEROSIS EXTRAMEDULLARY HEMATOPOIESIS	+	
			BONE MARROW		OSTEOGENESIS	+	
			NASAL CAVITY		INFILTRATION OF LEUCOCYTES	+	
			LUNG		CALCIFICATION OF VASCULAR WALL	+	
			LIVER		FATTY DEGENERATION OF HEPATIC CELLS FOCAL ATROPHY OF HEPATIC CELLS SMALL GRANULOMA PROLIFERATION OF BILE DUCT WITH FIBROSIS INFILTRATION OF LEUCOCYTES	+	
			PANCREAS		INFILTRATION OF LEUCOCYTES	+	
			KIDNEYS		CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	+	
			TESTES	+++	LEYDIG CELL TUMOR (BILATERAL)	+	

1) FATE : Y , KILLED ON SCHEDULE 2) GRADE : NEGATIVE NOT PRESENTED 3) GRADE OF MASS :
 + , SLIGHT A , SMALL AND/OR SINGULAR
 ++ , MODERATE B , MEDIAL AND/OR SPORADIC
 +++ , SEVERE C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0351 CONTINUED
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0351	Y	736	TESTES					
				NODULE (BILATERAL)	+++			
			PROSTATIC GLAND					
			SEMINAL VESICLE	ATROPHY	+++	INFLAMMATION	+	
			ADRENAL GLANDS	MASS (UNILATERAL)	C	ATROPHY	++	
			BRAIN			PHEOCHROMOCYTOMA (UNILATERAL)	+	
						PIGMENTATION	+	

1) FATE : Y , KILLED ON SCHEDULE

2) GRADE : NEGATIVE NOT PRESENTED

+ , SLIGHT
++ , MODERATE
+++ , SEVERE

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0352
CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0352	X	711	HEART			FIBROSIS	+	ADENOMA: PITUITARY GLAND
			THYMUS			HYPERPLASIA OF EPITHELIAL RETICULUM CELLS	+	LEYDIG CELL TUMOR: TESTES
			SPLEEN			HEMOSIDEROSIS	++	
			BONE MARROW			OSTEOGENESIS	+	
			NASAL CAVITY			INFILTRATION OF LEUCOCYTES	+	
			LUNG	CONGESTION	+++	CALCIFICATION OF VASCULAR WALL	+	
			LIVER			FATTY DEGENERATION OF HEPATIC CELLS PROLIFERATION OF BILE DUCT WITH FIBROSIS	+++ +	
			PANCREAS			ATROPHY OF PANCREATIC ACINUS	+	
			KIDNEYS			CHRONIC PROGRESSIVE GLOMERULONEPHROPATHY (BILATERAL) PIGMENTATION (BILATERAL) INFILTRATION OF LEUCOCYTES (BILATERAL)	++ +	
			TESTES	ATROPHY (BILATERAL)	+	LEYDIG CELL TUMOR (UNILATERAL)		
			SEMINAL VESICLE	NODULE (BILATERAL)	++	ATROPHY	+	

1) FATE : X / FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

+ / SLIGHT

++ / MODERATE

+++ / SEVERE

3) GRADE OF MASS :

A / SMALL AND/OR SINGULAR

B / MEDIAL AND/OR SPORADIC

C / LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

APPENDIX 11-M4-0352 CONTINUED

CHRONIC AND CARCINOGENIC INHALATION TOXICOLOGICAL STUDY
OF METHANOL IN FISCHER RAT

INDIVIDUAL PATHOLOGICAL FINDINGS

LEVEL AND SEX : 1000 PPM MALE

STUDY NO. 83004

ANIMAL NUMBER	1) FATE	4) DAYS	ORGAN	GROSS PATHOLOGICAL FINDINGS	2)3) GRADE	HISTOPATHOLOGICAL FINDINGS	2) GRADE	PROBABLE CAUSE OF DEATH OR MAJOR PATHOLOGICAL FINDINGS
0352	X	711	PITUITARY GLAND	ENLARGEMENT HEMORRHAGE	+++ +++	ADENOMA		
			MAMMARY GLAND			DILATATION OF GLAND	+	
			HARDERIAN GLANDS			HYPERSECRETION (BILATERAL)	+	

1) FATE : X , FOUND DEAD

2) GRADE : NEGATIVE NOT PRESENTED

3) GRADE OF MASS :

A , SMALL AND/OR SINGULAR
B , MEDIAL AND/OR SPORADIC
C , LARGE AND/OR MULTIPLE

4) DAYS : AFTER START OF TREATMENT

+, SLIGHT
++, MODERATE
+++, SEVERE